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ABSTRACT

Participants at a conference on educational research discussed their priorities to determine whether a shared agenda could be developed for educational research in New Zealand. The conference papers are: (1) "Connecting Research and Practice: Buying In or Selling Out" (Barry McGaw) (keynote address); (2) "In Response to Barry McGaw's Keynote Address" (Anne Meade); (3) "Selling No One Short: Connecting Policy and Research in Aotearoa/New Zealand" (Lynne Whitney); (4) "Contextualising the Connections" (Stuart McNaughton); (5) "Users' Expectations: An NZEI Perspective" (Joanna Beresford); (6) "A New Zealand Post Primary Teachers' Association Perspective" (Bronwyn Cross); (7) "A Trustee Viewpoint" (Mark C. Farnsworth); (8) "A Postgraduate Students' Association Perspective" (Farida Tilbury); (9) "Policy Makers' Expectations: Priorities for Educational Research--Ministry of Education" (Howard Fancy); (10) "Policy Makers' Expectations: Education Review Office" (Judith Aitken); (11) "Policy Makers' Expectations: "Te Puni Kokiri" (Paora Howe); (12) "Closing Statement" (Anne Meade); and (13) "Priorities for Educational Research in New Zealand: Notes from Follow-up Workshop, 17 October 1997." Most papers contain references. (Contains four tables.) (SLD)

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PRIORITIES FOR EDUCATIONAL RESEARCH IN NEW ZEALAND

Conference Proceedings

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**PRIORITIES FOR EDUCATIONAL RESEARCH
IN NEW ZEALAND**

**CONFERENCE PROCEEDINGS
OCTOBER 1997**

New Zealand Council for Educational Research
Wellington
1997

New Zealand Council for Educational Research
PO Box 3237
Wellington

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Note: These papers have been published as presented. There has been no substantial editing, but where possible a standard layout has been used.

MIHI

Nau mai, haere mai ki te hui o Te Rūnanga o Aotearoa mō te Rangahau i te Mātauranga. Tēnā koutou, tēnā koutou, tēnā koutou katoa.

A very warm welcome to everyone to the 1997 NZCER conference. Welcome to the tangata whenua of this land, and to tauīwi. A special welcome to Professor Barry McGaw from the Australian Council for Educational Research, based in Melbourne. This is the first time Barry has been to NZCER for about 10 years. It is a pleasure to have you and others from out of town to visit our new offices, and Absolutely Positively Wellington. We have many apologies, but I do want to mention one in particular—that of Terry Crooks, President of NZARE. Stuart McNaughton and Ruth Mansell are here representing our professional body in his place.

Introduction

It is 3 years since NZCER held a conference. The last was in 1994 to celebrate our 60th birthday. We hope to increase the frequency and hold one every year.

Why this conference? A number of discussions led to NZCER deciding to hold a conference to consider “priorities for educational research”. These have been amongst NZCER Board and staff in our planning processes, and between NZCER and people like Judith Aitken and Howard Fancy. A theme in these discussions has been about putting scarce educational research resources to best use. There has been a sense that we “could do better” in coordinating educational research, and research and practice, for the benefit of learning and teaching. Frustration has been expressed to me by, for example, ERO and Te Puni Kokiri, about their needs for research-based knowledge not being met. Others have expressed a more general viewpoint. Liz Gordon, in an editorial in *Input*, the newsletter of the New Zealand Association for Research in Education, said in 1994,

There is very little planning involved in our educational research. Much of it is determined primarily by the interests of researchers. With an increasing diversity of individuals and institutions undertaking educational research in Aotearoa, a case could probably be made for co-ordination (or at least communication) among researchers. This could be of benefit for all.

(Gordon, 1994, p.1)

Very recently, in the *N.Z. Education Review*, Marc Jones of Auckland University made a more specific proposal focused on some approaches for inter-campus coordination of doctoral students.

New Zealand is not alone feeling this way. Seamus Hegarty, the Director of the National Foundation for Educational Research—for England and Wales—said at NFER’s 50th jubilee seminar last year, that one way to describe the organisation of educational research is as

... a glorified cottage industry, with lots of small and idiosyncratic producers ... hardly in their totality constituting a coherent system of knowledge acquisition, distribution and

utilisation. It is all very well letting a thousand flowers bloom – but not if you want a top class garden. Bad gardeners who cannot tell their weeds from their flowers, or their annuals from their perennials and never know when something will come into bloom and what colour it will be when it does, stand to be constantly surprised, but their gardens are likely to be a hotchpotch of colours where everything flowers in [summer] and nothing in [autumn], and there are lots of bare patches and other spots are overcrowded.
(Hegarty, 1996, pp.10–11)

Clearly, Australia has felt like this too, which is why there have been general reviews of the state of educational research across the “ditch”, which Barry will tell you about shortly, amongst other things.

So, what does NZCER hope to achieve by the end of today?

We hope to learn from the participants here today about your views of what you regard as priorities to see if there is a sense of a shared agenda as to priorities for educational research. A few weeks ago, NZCER convened a fono about educational research for Pacific Island early childhood education, and an agenda did emerge, which we will weave in this morning. These various consultations and weaving processes will help NZCER to develop a 1998–99 research work programme which is highly relevant for practitioners and policy makers, for Māori and tauīwi.

We also want to hear your views on how the funders—such as the Ministry of Education—and providers—such as NZCER—could improve frameworks for coordination. To go back to the garden metaphor, let’s discuss how we might share in some landscape garden design processes. We hope those views will come not only from the invited speakers, but also from other participants. We have built in several sessions for interaction amongst us all.

Tomorrow, NZCER’s research group leaders and a small number of other participants will be trying to distil out of today any consensus for NZCER’s future work programme, as well as discussing ways to improve the frameworks for coordination in the wider educational research constituency. Funders will be there. NZARE will also be there. Perhaps we could take some time at NZARE conference in Auckland in December to provide some feedback about the follow-up discussion?

NZCER will include a brief summary of tomorrow’s discussions in the conference proceedings, which you might want to order today. A summary will be in our next newsletter as well.

Kia ora huihui mai tātou.

References

- Gordon, L. (1994, June). Towards a research agenda? *Input*, 16(2).
Hegarty, S. (1997). Educational research in context. In S. Hegarty (Ed.), *The role of research in mature education systems*. Slough: National Foundation for Educational Research.

**CONNECTING RESEARCH AND PRACTICE:
“BUYING IN OR SELLING OUT”**

Keynote Address

Barry McGaw

Australian Council for Educational Research

Introduction

Educational researchers often promise too much in projecting implications of their work for policy and practice. Policy makers and practitioners often expect too much of educational research. Not surprisingly, everyone ends up disappointed.

If priorities for educational research are to be established, there needs to be a realistic and shared expectation of what might be achieved. There also needs to be recognition of the legitimate differences in the perspectives and values of researchers, on the one hand, and policy makers and practitioners, on the other.

There is also the question of whose priorities need to be set and by whom. Are there to be national priorities, priorities for national agencies, priorities for individual research organisations or groups? If research priorities are set, to what extent should a capacity for research generated from the interests of researchers be maintained and nurtured?

Further, issues of control and rights need to be resolved clearly. The increasing tendency for policy makers to commission research to ensure that it addresses their needs can introduce threats to the independence and integrity of the research. It is not just a question of a right to publish, since that can quite properly be forgone in certain circumstances to satisfy demands for confidentiality. It is also about more subtle influences that can see research shaped to produce results that will satisfy the commissioner to ensure continued patronage.

This paper examines first the nature of educational research and development, then comments on three reviews of aspects of educational research in Australia, including comment on issues of management of the research enterprise and the question of whether priorities ought to be set. The paper then addresses the question of how best to link research with policy and practice.

Nature of Educational Research and Development

Before addressing the question of how best to link research with policy and professional practice, it is worth considering what counts as research, or research and development, since they are frequently put together as an overall enterprise.

Defining Research and Development

OECD Definition

The Organisation for Economic Co-operation and Development (OECD) conducts regular surveys of research and experimental development in member countries across a wide range of fields. Research and experimental development is defined as:

creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society and the use of this stock of knowledge to devise new applications (OECD, 1992, p.29).

The OECD uses three broad subcategories of research and development activities:

Basic research: experimental or theoretical work undertaken primarily to acquire new knowledge, without any particular application or use in view;

Applied research: original investigation undertaken to acquire new knowledge but directed primarily towards a specific practical aim or objective; and

Experimental development: systematic work, drawing on existing knowledge, directed to produce new products, processes, or services, or to improve existing ones substantially.

The Australian Bureau of Statistics subdivides basic research into pure basic and strategic basic research according to the following definitions:

Pure basic research: research directed into specific broad areas in the expectation of useful discoveries; and

Strategic basic research: research providing the broad base of knowledge necessary for the solution of recognised practical problems.

With originality and investigation as the distinguishing characteristics of research and experimental development, the OECD excludes from consideration the following activities:

- education and training, except for postgraduate students' research and its supervision;
- scientific and technical information services;
- general purpose data collections;
- policy related studies such as the analysis and assessment of existing programs and the work of legislative commissions of inquiry; and
- testing and standardisation.

Applying the OECD Definition to Education

The OECD manual (1992, Annex V) illustrates the distinction between its three types of research and development work with an example relevant to education:

Basic research: study of the reading process, for example an investigation of how human visual systems work to acquire information from symbols such as words, pictures, and diagrams;

Applied research: study of the reading process to develop a new teaching method; and

Experimental development: development and testing of a special reading program.

Using the OECD exclusion rules, some investigative activities common in education would not be counted as research and development. Diagnostic testing of students would be excluded as being an application of well-established techniques to a problem (OECD, 1992, p.34). If the data from such testing were collected to study links between performance and other variables, the testing would count as research and development.

Programs to monitor student achievement could be counted as research and development in the early stages, if novel work were being done, but would presumably become "general purpose data collections" once established, and then be excluded under the OECD's definitions.

OECD's definitions and classifications are not esoteric matters. The OECD series on educational indicators, *Education at a Glance*, now includes indicators of national investment in educational research and development. This development is based on work undertaken for the OECD by McGaw and McKenzie (1993), following their use of the OECD approach to investigate investment levels in Australia for a national strategic review of educational research and development (McGaw, Boud, Poole, Warry, & McKenzie, 1992). Once national indicators are published comparatively, by an agency such as the OECD, pressure can be exerted for policy change to change the indicator.

More Restrictive Definition

In Australian universities, the kind of distinction the OECD makes between basic research, applied research, and experimental development is used restrictively as a basis for a differential reward system.

Some of the central funding for institutional research infrastructure is based on success in gaining other financial support. Funding obtained from peer-assessed, competitive research funding programs is the dominant factor. Funds obtained for work commissioned by policy makers receive only a low weighting unless the fund allocation mechanism gives considerable weight to peer assessment by academic researchers rather than to the judgments of the policy makers commissioning the work.

Differential allocation of funding for research infrastructure is also based on a measure of output. In this case, the heaviest weighting is given to publications in peer-refereed academic journals and books from high prestige, academic publishers. Reports to policy makers and communications for an audience of professional practitioners receive little weight in this exercise.

Education as a Field or Discipline

The OECD classifications apply to all fields of research and development. When it comes to education, there is not only the question of what counts as research and development but also the question of what research and development should count within the category of education.

The OECD classifies activities by Field of Science and Technology and also by Socioeconomic Objective but education appears only in the former classification. That is, the OECD sees education as a discipline rather than as a field of research.

The Australian Bureau of Statistics includes education as a category in both classifications. In its survey for 1988–89, expenditure (in March 1992 prices) was reported to be \$70.3m for education as a socioeconomic objective but only \$63.6m for education as a field of science. The \$6.7m difference was for work by researchers declaring allegiance to some other discipline but claiming their objective to be to address educational questions.

The broader definition offers the more appropriate way to think of education, seeing it as a field rather than as a discipline. This accommodates its diversity – in substantive questions addressed, ranging from learning and teaching to the politics of education; in the scope of the questions, ranging from learners and teachers to systems; and in the methodologies used, quantitative and qualitative. It also accommodates the variety of disciplinary perspectives that might be brought to bear.

Differences in Research Tradition

Within the educational research community, epistemological debate is more fundamental than any debate around what counts as educational research or how it might be classified on a continuum from basic research to experimental development.

The epistemological debate is concerned with the manner in which knowledge is gained and that, in turn, influences how educational research is conceived. Four long-term epistemological tensions are evident in educational research, with it conceived as:

- either a natural or an interpretative science;
- either a laboratory or a practical science;
- either a universal or a local science;
- serving either deliberative or practical ends (McGaw, Hamilton, Keeves, & Resnick, 1997, p.4).

The implications of these tensions can be illustrated with descriptions of three broad research traditions in education, viz, natural science investigation, interpretative studies, and interventions and evaluations.

Natural Science Investigation

The natural science tradition is based on the assumption of a natural, lawful reality to be discovered. It proceeds through controlled experimentation and by quasi-experimentation in which statistical adjustments are used to control for pre-existing differences.

In this tradition, the experimenter maintains an objective distance from subjects. Data gathering is expected to be replicable within sampling error and interpretations verifiable by independent data analysts.

The possibility of local, rather than universal, laws emerging has been introduced to take account of the impact of cultural context. Cronbach (1975) proposed systematic investigation of interactions with local conditions in order to determine how generalisable a finding might be. Investigations of aptitude-treatment interactions were one product of this approach (Cronbach & Snow, 1977). A more elaborate method for investigating interactions of context with research findings was introduced with meta-analysis (Glass, 1976; Glass, McGaw, & Smith, 1981).

Connections with educational practice from this research tradition first proceeded in the belief that conditions shown to have beneficial effects could be engineered into programs or materials to be used by professional practitioners. Greater understanding of the complexities of professional practice led to more modest expectations and an acceptance of the key role of the practitioner in shaping the treatment being introduced. There was still, however, the expectation that good research will help to shape planned interventions and ultimately influence professional practice.

Implementation itself can become the subject of experimental investigation. Good research on learning usually leads to instructional research through which the conclusions of the learning research are put to the test. On a larger scale, and usually in a quasi-experimental mode, evaluation studies investigate the impact of programs in complex settings.

Interpretative Studies

Research in the interpretative tradition reflects new ways of thinking about knowledge and competence in human practice. It sees knowledge as actively constructed by individuals, but not in isolation from the communities in which they develop. That is seen to be true of learners, but also of professional practitioners and researchers.

Individuals are seen to participate in communities of discourse which shape the behaviour of all participants. The research community has a scholarly discourse within which theories are developed, and accepted modes of challenging them established. The communities of professional practitioners and policy makers also develop their common language which shapes individuals' interpretations of their own practice.

Research in the interpretative mode usually seeks to understand not just what people do, but how they derive meaning from what they are doing. Much interpretative research focuses on the nature of discourse in various communities of practice. In education, various studies are now charting the language of classrooms, with particular attention to the ways in which students are initiated into the questions, points of view, expectations of evidence, and forms of verification of different disciplines. The policy development process is being subjected to similar analyses.

Interventions and Evaluations

Another body of educational research takes social change as its object of inquiry, and seeks both to evaluate the overall effectiveness of interventions and to determine which aspects of an intervention, singly or in interaction, are responsible for positive or negative effects. The interventions may be programs of teaching or curriculum change, or broader policies about, for instance, patterns of funding or selection of students.

Intervention and evaluation research calls for careful observation and measurement within either a natural science or interpretative framework. Because the objects of study are complex social interventions, attention must be paid to specifics of context, including historical and cultural factors, that may influence the implementation of planned interventions.

The focus may be deliberately designed interventions or existing variations in educational programs that can provide comparisons of different interventions. Comparisons are possible between countries, states, schools or even individual teachers. Inferences from these non-experimental studies of natural variation depend on the use of increasingly sophisticated statistical procedures.

Interpreting Differences in Research Traditions

Debates among researchers about the different research traditions are hotly contested. Some, such as Lincoln and Guba (1984), point to an historical development in which "different sets of basic beliefs have guided inquiry in quite different ways" in successive periods from "prepositivist" to "positivist" and then to "postpositivist". Others, such as Husén (1988), focus on the positivist (natural science investigations) and postpositivist (interpretative). Popkewitz (1984) describes these two as "empirical-analytic" and "symbolic" but adds "critical" as a third. Critical theorists emphasise the "search for knowledge of the genuinely human" to improve the human condition (Walker & Evers, 1994, p.5024) and so build a direct connection between research and practice.

Walker and Evers (1994) suggest that there are three ways in which the competing research traditions can be dealt with. Two accept the diversity, one seeks unity.

One approach to the diversity is to see the traditions as epistemologically different and incommensurable and so mutually incompatible. This approach, which Walker and Evers (1994, p.5022) call "oppositional diversity" results in claim and counter-claim about which approach is the valid one. Proponents argue for the validity of their epistemology and then for the utility of their preferred methodology in yielding understanding of educational phenomena and establishing the base for links with policy and practice.

An alternative approach to diversity is still to see the traditions as epistemologically different and incommensurable but complementary. This "complementary diversity" thesis, according to Walker and Evers, is attractive to many "in view of various distinct desiderata in educational research, not all of which can be met by any one single paradigm" (p.5024). From this perspective, no one epistemology need prevail. Each can yield its insights and contribute to a richer whole.

Walker and Evers (1994) believe neither approach accepting diversity is adequate. Instead they argue that "there is a touchstone for judging the respective merits of different research traditions and bringing them into a productive relationship with one another" (p.5022). From the perspective of their "unity thesis", however, it does not follow that all theories are equally reasonable. "Having identified common ground between theories, their differences are next rigorously set out . . . to identify the strengths and weaknesses of each, and to reach a decision on the theory which is strongest under present circumstances (p.5029). The criteria used in this coherentist approach are more than empirical adequacy. They include as well "consistency, simplicity, coherence, comprehensiveness, and fecundity" (Evers & Lakomski, 1994, p.1773).

Reviews of Educational Research in Australia

Three reviews of educational research have been conducted in Australia in recent years. One provided a review of the then state of educational research and proposed a variety of policy changes in relation to the research enterprise (McGaw et al., 1992) and a second provided a similar review focused more narrowly on research in vocational education and training (McDonald, Hayton, Gonczi, & Hagar, 1993). The third reviewed the outcomes of educational research projects funded under the Australian Research Council's Large Grants Program in the period 1989 to 1993 (McGaw et al., 1997).

General Reviews of State of Educational Research

Origins and Sponsorship of Two National Reviews

The broad general review (McGaw et al., 1992) was initiated by the Australian Research Council, an agency of the federal government responsible for recommending funding for research in all disciplines, primarily in higher education institutions. It was the third initiated in a series of discipline reviews, commencing after physics and earth sciences, but its origins lay partly in criticisms from within the educational research and development community about the adequacy of funding for its enterprise. There had been a separate federal funding agency for educational research and development during the 1970s, the Education Research and Development Committee

but, with its abolition, funding levels had dropped. The Australian Research Council had become the sole agency through which competitive research grants could be sought and a view had developed that the disciplinary structure of its committees did not deal adequately with a field such as education.

Financial support from the Australian Research Council for this general review of educational research and development was conditional on the provision of additional support from other agencies. In the end, there were 17 financial sponsors, including nine professional associations, two national research and development agencies, four of the eight state and territory departments of education, a federal government agency, and the Australian Research Council. Participants in a planning meeting convened by the Australian Research Council formed a Reference Group for the review which was conducted by a Panel, appointed at that planning meeting and consisting of the head of a national educational research and development agency, an educational researcher who was a member of an Australian Research Council Review Panel, a researcher in vocational education and training, and a senior official from a state department of education.

The more specific review of research and development in vocational education and training was commissioned by the Vocational Education, Employment and Training Advisory Committee (VEETAC), a committee established by the national council of Ministers of Vocational Education and Training because of concern that there was an inadequate "research and development base to guide the implementation of reforms and the best use of resources" (McDonald et al., 1993, p.i). To develop a national strategy for research and development in vocational education and training, VEETAC appointed a Research and Development Working Party which commissioned assistance from a group of vocational education researchers at the University of Technology, Sydney.

There were several significant differences in the origins and sponsorship of the two reviews which, in the end, appear to have influenced the impact of their recommendations. The general review arose from the educational research community and, though it received some financial support from departments of education and received submissions from all but one of them, was predominantly sponsored and conducted by the research community. The more specific review of research and development in vocational education and training was established and supported by vocational education and training authorities while engaging the research community in its review process.

Scope of Research Activities

The dominant forms of research and development in education, according to the latest data available to the review from the Australian Bureau of Statistics' surveys of research and development are shown in Table 1, were "applied" (45 percent of expenditure) and "experimental development" (30 percent of expenditure). A quarter could be viewed as "basic", the category supported by the Australian Research Council, and almost all work in this category, as Table 1 shows, was undertaken in higher education institutions.

More specific analysis of the content of educational research and development from the entries in the Australian Education Index for 1980 and 1989 revealed growth in the areas of educational philosophy, policy, and development; teaching materials and equipment; and higher education systems and institutions; and decline in the fields of educational psychology and sociology.

Table 1
Expenditure by Type of Educational R&D: Australia 1988-89
(\$ million, March 1992 \$)

Location	Basic research	Applied research	Experimental development	Total
Government				
Federal	—	0.1	0.5	0.6
State	0.3	5.6	13.6	19.5
Higher education	15.2	26.3	7.2	48.7
Private non-profit	0.1	1.0	0.4	1.5
Total	15.6	33.0	21.7	70.3

Submissions to the review also nominated trends in educational research and development. In substantive terms, increased emphases were nominated in a range of fields including literacy and language education, mathematics and science education, special education, gender issues, teacher education, and policy issues. In methodological terms, increased use of paradigms from philosophy, critical theory, feminism, and economics, and decreased use of paradigms from psychology were reported. Increased use of qualitative methods and, in the case of quantitative work, increased use of multivariate methods were also reported.

Expenditure figures, by source of funds and location of the research and development activities, are shown in Table 2, again using the latest data available to the review. Almost all financial support for educational research in Australia is provided by government since there is little investment by business and little philanthropic contribution. The largest contribution is from the federal government with the bulk of that contribution being through its funding of university staff, a proportion of whose time is committed to research. Total expenditure on educational research and development in Australia represented 0.35 percent of total education expenditure. By comparison, 1.40 percent of health expenditure was allocated to research and development and the federal government has since committed itself to increasing that rate to 2.0 percent of total health expenditure.

Table 2
Location and Source of Educational R&D Expenditure: Australia 1988-89
(\$ million, March 1992 \$)

Location	Source					Total
	Federal govt	State govt	Business	Private non-profit	Overseas	
Government						
Federal	0.6	—	—	—	—	0.6
State	0.2	19.2	0.1	—	—	19.5
Higher education	46.0	1.3	0.2	1.1	0.1	48.7
Private non-profit	0.5	0.5	—	0.5	—	1.5
Total	47.3	21.0	0.3	1.6	0.1	70.3

Most of the research and development funded by the state governments was undertaken in state government agencies though, since 1988–89, there has been an increasing tendency to commission such work from external agencies. This reduces costs to government authorities in maintaining their own research capacities and can give them access to specialist expertise for speedy, flexible responses to changing circumstances. It also offers the benefits of credibility that independent agencies can provide. For the researchers there are the benefits of working on projects that are clearly relevant to the needs of education authorities but there are risks of constraints on the scope of work and rights of publication.

Conclusions of the Reviews

Both reviews reported on the status of educational research and development in Australia, one on the overall picture, the other specifically on research and development in vocational education and training.

The general review concluded that the educational research and development enterprise in Australia had many strengths and that there were signs of considerable strengthening in recent years.

From the Australian Research Council, education attracted 15 percent of large grant funds allocated to the social sciences in 1992. This proportion was exceeded only by psychology (40 percent) and economics (23 percent), and was well in advance of sociology (7 percent) and geography (6 percent). In funding for new projects, education was second after psychology (McGaw et al., 1992). Further, 22 of the then 50 Australian universities had nominated education as one of their areas of research strength.

While the education sector did well, funding per staff member was low because of the size of the sector. There was a relatively low rate of applications from education academics—about 1 per 50 full-time equivalent education academics compared with about 1 per 25 full-time equivalent non-education academics in the social sciences. The relatively low application rate reflected the history of much of the education sector in higher education originally in teachers colleges and then in colleges of advanced education without a research brief or infrastructure funding for research. Despite the strengths, there was also evidence of serious problems. The whole educational research enterprise seemed at the time of the strategic review in 1992 to be a fragile resource requiring some reorientation and increased support.

Researchers seemed generally isolated from one another, working as individuals on their own projects, and certainly isolated from the communities of policy makers and practitioners. Education administrators and practitioners perceived much educational research to be irrelevant to their concerns. Educational researchers perceived a lack of support for, and interest in, their work from government agencies and the higher educational sector. To some extent, this reflected the training of many education professionals. The great majority of teachers had been trained in institutions and by staff without any substantial engagement with research. That is very different from the education environment for neophytes in fields such as medicine and psychology.

Growth in the educational research and development enterprise, particularly since the 1960s, had created some of the lack of cohesion. There were 33 professional education associations in Australia that published research-based journals, 23 of them established in the last three decades. Since education is a research field rather than a discipline it is, to some extent, inevitable that

researchers will communicate and meet around specific research interests within the field but the conclusion of the review was that the educational research community in Australia was too fragmented.

The more specific review of research and development in vocational education and training reported that, whereas 27.9 percent of all recurrent expenditure on education was for vocational education and training, only 14.6 percent of educational research and development expenditure was for vocational education and training. This means that research and development expenditure represents only 0.22 percent of total expenditure in vocational education and training, whereas educational research and development expenditure as a whole is 0.35 percent for total expenditure on education.

The review of research and development in vocational education, like the general review, concluded that the current research effort was fragmented and that links between research and policy and practice were weak, with little fundamental and general-issues-based research in vocational education and training and no strong critique of vocational education and training policies and programs.

Review of the Outcomes of Educational Research

The third review examined the outcomes of educational research projects funded under the Australian Research Council's Large Grants Program in the period 1989 to 1993 (McGaw et al., 1997). This review focused on the work of 20 educational research teams funded between 1989 and 1993 under the Australian Research Council's Large Grant program.

The work of these teams was analysed using the classification by research model outlined earlier, viz, "natural science", "interpretative", and "interventions and evaluations", rather than the OECD classification into basic and applied research and experimental development. Most of the project teams worked with more than one model. The distribution of funds allocated to the teams is shown in Table 3 (McGaw et al., 1997).

The classification in Table 3 shows that the dominant model in the work of the research teams was the natural science model, with almost 60 percent of all funding going to projects using this model. Research in the interpretative tradition attracted almost 25 percent and intervention studies less than 20 percent.

This may, however, be an underestimate of the overall influence of the interpretative model in educational research. Several of the research teams reviewed shifted over the period from 1989 to 1993 toward more interpretative frameworks. Given general trends in the social sciences, it is likely that increasing numbers of the best education scholars may make similar moves, perhaps bringing to interpretative research more use of quantitative methods than has been the case in the past.

Table 3
Distribution of Funding by Research Model for Each Research Team

Team	Natural Science	Interpretative	Intervention and Evaluation	Total
1	215,000			215,000
2			210,000	210,000
3	82,500		117,500	200,000
4	95,000		95,000	190,000
5		85,000	85,000	170,000
6	160,000			160,000
7	150,000			150,000
8	75,000	75,000		150,000
9	145,000			145,000
10	140,000			140,000
11		140,000		140,000
12	67,500	67,500		135,000
13	125,000			125,000
14		110,000		110,000
15	105,000			105,000
16		100,000		100,000
17	100,000			100,000
18	90,000			90,000
19		80,000		80,000
20	80,000			80,000
Total	1,630,000	657,500	507,500	2,795,000

An interesting feature of this work is the extent to which it was team based. The remit from the Australian Research Council was to review of the work of recipients of large grants. It turned out that much of the funding had gone to coherent teams of collaborators, sometimes in different locations, but working together in a sustained way. The nominated Principal Investigator varied from project to project in some cases so the focus shifted from the principal grant recipient to the teams.

The publication records of these teams were generally outstanding, as were the links they had developed with researchers in other institutions within Australia and overseas. A good number of the teams had also forged effective links with policy makers and practitioners.

Proposals for Managing Research Enterprise

Setting Priorities

Both of the general reviews of educational research and development suggested priorities for future educational research and development in Australia. The broad review (McGaw et al., 1992) proposed the following criteria for setting priorities for the national research agenda:

- criteria deriving from the application, use, and benefits of research:
 - * social and economic needs;
 - * equity and social justice;
 - * the needs of professional practice; and
- criteria deriving from the needs of educational research:
 - * the need to preserve and capitalise on existing research strengths;
 - * the need to contribute to and capitalise on advances in research;
 - * the need to remedy important gaps and weaknesses in research;

and then, in the light of these criteria, nominated the following research priorities for concentration of a substantial component of national funding for an initial period of at least three years:

- fundamental research on areas of continuing importance to education and the improvement of professional practice, in particular:
 - * the teaching of thinking skills;
 - * learning in the preschool and adult years;
 - * assessment of student learning;
- research on the organisation and management of educational structures, programs, and personnel, and the interrelationship between education and the wider society, in particular:
 - * leadership and management in devolved education systems;
 - * education, training, and work;
 - * teachers' work;
- research directed towards the revision and improvement of specific areas of the curriculum, in particular:
 - * mathematics education;
 - * science education;
 - * language and literacy education.

The review of research and development in vocational education and training (McDonald et al., 1993) proposed the following criteria for setting priorities:

- the potential benefits to vocational education and training, particularly focusing on topics for which there is a major research need and the extent to which the research can form a foundation for further research;
- the ability for the research to be used;
- feasibility of the work in terms of:
 - * the gap between what is known and what it is possible to find out;
 - * the capacity of available personnel to undertake the work;

and, in the light of these criteria and information collected from a search conference, interviews, and submissions, proposed that the majority of government funding of research and development be focused on the following priority areas for an initial period of three years:

- economic benefits of vocational education and training at macro and micro levels;
- management in the technical and further education systems, particularly the assessment of various approaches to corporate management;
- links between training and productivity, including the interdependence of training, organisational development, business vision, and productivity and the place of language, literacy, and mathematics in workplace reform and training;
- community perceptions of vocational education and training and how these perceptions are formed;
- competencies of teachers in technical and further education and the potential role of practitioners as researchers;
- assumptions underlying and strategies for implementing competency-based training and competency-based assessment;
- approaches to the dissemination and use of research in vocational education and training.

These priorities are more specific than those commended for general education research but they reflect the policy and program concerns of the vocational education and training sector in Australia. Both reviews of research sought ways of strengthening the links between the concerns of policy makers and practitioners and the work of the educational research community. They looked not only to a short term research agenda that addressed current policy concerns but also to strategies for establishing enduring links that would bring the two communities closer together and make them mutually reinforcing.

Organisation and Funding

In addition to recommendations about research priorities, both reviews offered recommendations about the organisation and funding of research and development. Both recommended the development of stronger links between policy makers, practitioners, and researchers to maximise chances of research and development fostering long-term improvements in Australian education. For basic research, both reviews suggested that the major source of funds continue to be the competitive research grant scheme of the Australian Research Council. The general review considered and rejected the proposition that this Council be asked to establish a separate Education Panel for the evaluation of research proposals in the field of education. It did recommend, however, that at least one education representative be a member of the Humanities and Social Sciences Panel. It also recommended that the Council broaden the scope of other competitive schemes from which grants are counted in establishing the base for the Council's allocation of research infrastructure funds and block funds for small projects.

The general review proposed the establishment of an Education and Training Research Board, suggesting it have 12 members, an independent Chair plus three representing each of educational researchers, education providers, practitioners, and the wider community. For education providers it was claimed that the benefits would be a stronger influence in setting a national research agenda, more comprehensive and powerful studies through pooling of resources, and attention to a wider range of issues. For researchers, a major benefit claimed would be the opportunity to have a more tangible impact on policy and practice.

To fund the proposed Education and Training Research Board and its research and development program, the review proposed a small levy on education expenditure. The proposal of a levy was based on research and development schemes in a range of agricultural industries in Australia where the federal government matches industry contributions to a level of 0.5 percent of the gross value of the agricultural product. For educational research and development, the review proposed that the total funding be increased over a 10-year period from the present 0.35 percent of expenditure on education to 0.7 percent and, more specifically, proposed that a quarter of this be raised by levy and managed by the Education and Training Research Board.

The specific review of research and development in vocational education and training examined a range of structures for coordination of general-issues-based research and development and client-oriented research and development, including a single national organisation, several independent centres, a single centre with several branches, and a consortium of research and development partnerships.

This review recommended an increase in the funds for research and development in vocational education and training from 0.22 to 0.5 percent of total expenditure on vocational education and training over three years followed by a gradual increase to 1.0 percent. It was proposed that the federal government be the primary source of the increased funds for research and development in vocational education and training through allocation of a small component of its contribution to this sector of education.

The general review reported first but proposed that consideration of its recommendations be delayed until the review of research and development in vocational education and training was completed. The general review's inclusion of training in its proposed research priorities and its recommendation of an Education and Training Research Board, however, were deliberately intended to ensure that a broad view of education and training be taken within the compass of a single national research and development agenda under the auspices of a single new national organisation. Inevitably, given its terms of reference and its sponsorship, the review of research and development for vocational education and training proposed a research and development program and a structure specific to vocational education and training.

Responses to Recommendations

The responses to the two reviews are now clear, at least in the short term. One recommendation of the general review was adopted immediately. It was the negative recommendation that a separate Education Panel not be established within the Australian Research Council. Another, broadening of the category of funding agencies whose competitive grants are counted by the Australian Research Council for allocation of block funds for infrastructure and small projects, was accepted by the Council in its response to the review. A third, modest impact has been use of the review's research priorities to set local agendas. At least one major university used the priorities in a restructuring of its staffing and program.

The other recommendations of the general review have had virtually no impact since the key recommendation of funding for the proposed Education and Training Research Board and its research and development program through an "industry levy" was strongly opposed by agencies from whose funds the levy would be drawn. The Australian Vice-Chancellors' Committee, for

example, immediately and publicly opposed the idea of any levy for research on education and training being taken from the funds for higher education. The state and territory education authorities similarly opposed any levy on their funds for a national research and development effort. A briefing paper on the report prepared by one State for the Council of Federal, State, and Territory Ministers and the decision of the Council endorsed the proposals for a stronger national research and development agenda and a stronger role for education authorities in setting the agenda, but made no mention of the proposed Education and Training Research Board or of the proposed levy and resolved in relation to funding only to recommend that the Federal Minister consolidate a range of federal research programs.

By contrast, the recommendations for an increased research and development program in vocational education and training have been acted on because increased funding has been provided. In this case, there was essentially a single source of funds to be persuaded, not a plethora a governmental and other education providers. Although the federal system involves the Federal, State, and Territory governments in vocational education and training just as it does in schooling, the Federal government has a stronger role and, furthermore, responsibility for oversight of vocational education and training has been given to a new Australian National Training Authority for which the funding comes from the federal government. This Authority established a National Research Advisory Council and allocated \$1.2m for a new competitive research grants scheme in 1994, and \$2m in 1995 with an expectation of further increased allocation in subsequent years.

In December 1993, the National Research Advisory Council agreed on five priorities for its research and development program. It held a national conference on these priorities in April 1994 and revised them to some extent to the following:

- needs of small business, including, for example:
 - * women in small business;
 - * managing small business;
 - * the extent to which skill demand differs in organisations of different size;
 - * effective training for people in small enterprises;
- needs of special groups, focusing on, for example:
 - * in the first instance, Aboriginal people and youth;
 - * modes of delivery, especially to Aboriginal people in remote and rural communities;
 - * skill levels of the lowest school achievers and the contexts in which these might be improved;
- assurance of quality, including, for example:
 - * evaluating the appropriateness of training in relation to client needs;
 - * developing and monitoring standards for teaching or training and learning;
 - * developing and monitoring procedures for measuring such standards;
 - * translating quality assurance experience into the vocational education and training context;
- the economic impact of vocational education and training, including, for example:
 - * the economic outcomes of participation in vocational education and training with particular reference to labour market and income consequences;
 - * the economic costs and benefits of major models of initial vocational education and training;

- * the role of vocational education and training in national economic development;
- * the role of vocational education and training in bringing about changes in the workplace;
- * market mechanisms and vocational education and training;
- learning in the workplace, including, for example:
 - * differences between the workplace and the classroom;
 - * teaching skills in the workplace;
 - * workplace assessment.

Management of the vocational education research and development program has been altered but it continues to exist as a national initiative funded through the Australian National Training Authority. Several significant research centres have been established with commitment to funding in the order of \$200,000 per year for at least three years. The first was in the economics of education and training, the most recent in assessment.

There are two general lessons that might be learned from the outcomes of the two Australian educational research and development reviews. One is that serious consideration of recommendations is enhanced when education providers are seriously engaged as sponsors of the review, as they were in the review of research and development in vocational education and training. Their engagement indicates, as a starting point, a likely belief among senior administrators in the potential value of research and development. These providers are the major potential beneficiaries of enhanced research and development and the major potential sources of funds for any enhanced effort. Where the review is undertaken primarily by the research community, as was the general review, the key group of providers is likely to be insufficiently engaged to have strong ownership of the recommendations or the outcome.

A second lesson is that adoption of recommendations which are fundamentally dependent on increased funding is more likely where responsibility for considering the recommendations is not diffused over a large number of agencies but can be undertaken in a single agency with power to respond. In a federal system, such as Australia's, this can be difficult to achieve unless there is a clearly authorised national agency which can take action.

It could also be added that there can be a certain serendipity in the outcomes. The review of research and development in vocational education and training was undertaken in Australia at a time when funding for all aspects of vocational education and training was being reviewed and increased. The case for research and development still needed to be made, of course, and there was still a competition for funds but the allocation for increased research and development came from increased funds not from reallocation of existing funds.

Connecting Research With Policy and Practice

Seeing educational research as research with education as a socioeconomic objective does not resolve the manner in which the research endeavour contributes to the field. To do that requires consideration of the manner in which research can link with policy development and professional practice.

Differences in Perspective

Academic and professional concerns intermingle in educational research. Academic concerns typically range across the purposes, procedures, and reporting of educational research. Professional concerns tend to be practical. They draw upon educational research as a body of ideas from which to generate new solutions, not new knowledge. In some cases, policy makers and practitioners seek enlightenment to inform their action, in other cases they seek recipe knowledge to prescribe their action.

Educational research is thus expected to generate different kinds of knowledge, reflecting the different questions with which different groups approach it. While they may all have a connection with the fields of policy and professional practice, there is not the same immediate concern in all cases with implementation, or even identification, of desired changes. The reason is that the sources of their questions vary. Anderson (1986) suggests that the sources of research questions include:

- intellectual curiosity;
- hypotheses arising from theory;
- personal concern about particular problems; and
- requests from policy agencies.

Another way of thinking about the differences between researchers and those professionally engaged in the practice of education, either as policy makers or as teachers, is in terms of their professional priorities. Key differences are summarised in Table 4.

Table 4
Differences in Priorities of Researchers and Policy Makers and Practitioners

Researchers	Policy makers and practitioners
Willing to work on parts of problem	Concerned with complex, applied problems—holistic, context-based
Interested in raising new questions	Interested in facilitating policy and practice choices
Preference for critical analysis and critique	Sometimes a preference for legitimating choices already made
Demands of work set time limits	Demands for decisions impose tight time limits
Professional rewards (promotions criteria) emphasise basic research	Professional rewards depend on development and implementation of changes in policy and practice

The differences in Table 4 ought not to be overplayed but they are helpful in illustrating why the interests of researchers, on the one hand, and policy makers and practitioners, on the other, do not necessarily intersect.

Researchers are frequently willing to work on only part of a problem in order to gain an understanding of its detail. Policy makers and practitioners must, inevitably, take a holistic view. They cannot ignore the impact of parts of the problem that researchers might choose to ignore since their decisions and actions are set in the whole context.

While researchers search for explanations they are also satisfied by the identification of new questions to be answered. Sharpening new questions to be addressed is, for them, an important way to achieve greater understanding. As a consequence, they are also interested in critique as a key outcome of research. Policy makers and practitioners may well be open to further questions but must also be willing to reach closure in the meantime in order to decide upon action. They are more interested in obtaining the grounds for decision than in critique *per se*. In cases where they have already decided on a course of action, they may be more interested in research legitimating a choice already made than in informing choices to be made.

There are also differences in the time frames within which the two groups need to work. For researchers, the work is finished when it is finished. For policy makers and practitioners, timing is more critical if the research is intended to have impact on their decisions.

Where the researchers are university based, their rewards in terms of recognition among peers and promotion come from forms of academic publication that focus on theoretical analysis and the elaboration of further research questions. Attention to key problems of policy or practice in ways that advance policy or practice is typically a secondary consideration.

These differences in perspective are cast in sharp relief when research is commissioned by policy makers. While commissioning formally gives them a degree of control, the researchers may find it difficult to put aside entirely their own priorities where there is conflict with those of the commissioner.

Strengthening the Research Effort

The analysis of the nature of educational research and development, and the reviews of educational research in Australia, all point to ways in which the research enterprise might be strengthened. This will need to involve changes to the research enterprise itself and changes to the linkages between the research community on the one hand and the communities of policy makers and professional practitioners on the other.

Maintaining Eclecticism

One important message is the need to maintain an eclectic approach. Epistemological or methodological hegemony will limit and stultify the research and development enterprise. The balance may well be shifting from "natural science" to "interpretative" models of research but there continues to be significant research of both a basic and applied kind in the natural science tradition which informs our understanding of educational processes and which can introduce and validate new practices.

Adoption of the unifying approach commended by Walker and Evers (1994) and using the criteria of the "coherence theory of justification" (Evers & Lakomski, 1994, p.1773) will support the maintenance of an appropriate eclecticism.

Concentrating Effort

A second, somewhat controversial, strategy would be to concentrate the research effort to some extent. This would permit more sustained work by those most likely to deliver but would, of course, be at the expense of others who might have hoped for support for at least some aspects of their work.

In circumstances of limited resources for research, concentrating funding on fewer researchers rather than spreading it thinly would involve picking "winners" in whose work to invest. It would be important then to have a rigorous evaluation of the outcomes of the funding so that resources can be redirected over time if performance does not justify continued support.

Some research funding programs appear to offer renewal of funding on the basis of the quality of each round of applications for further funding, with little evidence of the results of previous funding other than self report in the next-round application.

Building Multidisciplinary Teams

The requirements of eclecticism and concentration of effort can be brought together in the development and funding of multidisciplinary teams to work on educational issues. Enriched understandings can come from the variety of substantive and methodological perspectives a multidisciplinary team can offer. Application of the coherentist criteria of Evers and Lakomski (1994) will ensure that simple criteria such as empirical adequacy do not dominate in the formulations of the research findings.

There was some multidisciplinaryity in the 20 teams whose work was reviewed in Australia. A team reviewing the development of youth policy over several decades consisted of an historian, a political scientist with research interests in social class and international social movements, and a researcher with a background in youth work and youth policy. A team concerned with mathematics learning consisted of a university mathematician and teacher and a cognitive psychologist. Other teams were more homogeneous, however, concentrating expertise and bringing the benefit of broader experience and a capacity to share in some ways more deeply than a multidisciplinary team.

Improving Links With Policy Making and Practice

If the unique feature of educational research is its engagement with a field of policy and professional practice, then work needs to be done to build and sustain good links between the research community and the communities of policy making and professional practice.

Setting Key Agenda Issues Collaboratively

One way to work at this is to have the research agenda set collaboratively. This can be done for the work of an individual team, as is currently being done for ACER's Longitudinal Surveys of Australian Youth, or it could be done in nominating some priorities areas within a national research enterprise or even in setting a national research agenda.

A good example of the limited imposition of national priorities in the context of a research funding program which could accommodate other non-thematic work is provided by the Australian National Training Authority's national, competitive, research funding program. The priorities have been established and changed over time by a group representative of all three communities.

Collaborating in Research

Direct collaboration in the research itself is another possible way to improve links. The action research tradition offers this possibility (Carr & Kemmis, 1986).

In action research, policy makers and practitioners treat their own ideas and work as objects for analysis and critique. On the basis of careful reflection, they may uncover theoretical ideas which turn out to be unjustified, ways in which practices shaped by habit or tradition have become irrelevant, and how the settings in which they work place obstacles in the way of attaining educational goals. Collaborating researchers then have a role in facilitating this critique and analysis, and not in working on their own agendas with the policy makers or practitioners simply being grist for their mill.

A national project in Australia, funded under a national professional development program and operating under the descriptive title, *Innovative Links between Universities and Schools for Teacher Professional Development*, provided the opportunity for academic researchers in 14 universities to work in partnership with practising teachers on a whole-school basis in around 100 schools (Yeatman & Sachs, 1995).

What the practitioners gained from the researchers was cross-contextual research information that enabled them to situate their reflective practice in a wider context. The academics became aware of what practitioners regard as important and relevant and why. Participants reported that the relationship between teachers and academic associates was mutually beneficial when it was an equal relationship and best when the participants viewed each other as learners in the project.

In addition to active collaboration from different home bases, personnel exchange programs can build links in new ways between the separate communities.

Building Incentives for Engagement With Policy and Practice

Perhaps the most important thing to do in pursuit of collaboration is to build incentives which encourage it. The Australian National Training Authority Research Advisory Committee gives priority in funding to project teams in which there will be genuine collaboration among team members from the different communities. That Committee also ensured that its funding program was accepted as one of the competitive programs from which winning of grants brings additional research infrastructure funding to universities from the university funding agencies.

More generally, work needs to be done to reduce the impact of the different interest and reward systems identified in Table 4. Unless they are reoriented in some way, the interests of the different communities will not intersect and, worse, may even be in conflict. In the case of the Australian National Training Authority Research Advisory Committee's program, recognition under the infrastructure funding program for universities was obtained to ensure that the grants had high status in the university sector and were attractive to university researchers.

There will seldom be such an easy way to manage the reward system to align the interests of researchers with those of policy makers and practitioners. More sustained efforts to produce cultural change on both sides and to build mutual respect will be necessary.

Questions of ownership and control of intellectual property and control over rights to publish also need to be addressed directly. The demands of intellectual freedom for researchers and the need for, or even just the desire for, confidentiality by policy makers and practitioners can be in conflict. Potential conflicts need to be anticipated and resolution strategies agreed to in advance if effective working relationships are to be maintained.

Risks for Researchers in Close Engagement

Engagement in contentious policy issues can have its risks for researchers who may become caught in political battles for which they may not be well prepared.

The recent Australian National School English Literacy Survey provides an interesting cautionary tale. This project was commissioned by the national government, managed by a committee representative of the states and territory education departments, the non-government school sector and teacher unions, and undertaken by the Australian Council for Educational Research (ACER). It surveyed the literacy achievements of Year 3 and 5 students in reading, viewing, listening, writing, and speaking, and reported on the distributions of performances against separate scales for each of the five dimensions of literacy and against the outcomes defined in the eight broad levels of achievement set out in the national profiles (Curriculum Corporation, 1994).

The committee's report was not acceptable to the Commonwealth Minister for Schools, Vocational Education and Training because he wanted, as well, to have benchmarks set on the scales to reflect the level of achievement expected of all students at Year 3 and Year 5 and a report of the percentage of students who had not achieved the relevant benchmark. The Management Committee requested ACER staff to explore the relationship between the achievement scales developed for the project and draft literacy benchmarks being prepared under another project for the Council of Ministers.

It was not possible to move from the draft benchmarks to the scales in any straightforward way. As an alternative, the writers of the benchmarks at the Curriculum Corporation were asked by ACER staff to judge whether each task on the reading and writing tests was above or below what would be expected of students at Year 3 or 5. Only reading and writing were used because the draft benchmarks were more advanced for those two dimensions of literacy.

Using this approach, "pass" locations were established for reading and writing at Year 3 and 5 and the percentages above and below the pass point were established. This information was drafted into the report for the Survey. The Management Committee resolved not to report this detail. It chose to include a description of the process in an appendix and to declare only the levels on the national English profile within which the "pass" points lay.

The Management Committee was advised that, if it did not report the specific locations of the "pass" points and the percentages of students above and below, the Commonwealth Minister would release a separate report providing this detail. The project report did not include the detail (Management Committee for the National School English Literacy Survey, 1997) so the Commonwealth Minister did release a separate report (Masters, 1997). This report contained the information presented to the Management Committee. No additional analyses were undertaken.

What ensued was a substantial political debate between the Commonwealth Minister and his State and Territory counterparts who claimed that the Commonwealth Minister was manufacturing a crisis by setting benchmarks at too high a level on the basis of draft benchmarks for which no agreement had yet been reached.

One response from within the State and Territory bureaucracies was to say that, while the Commonwealth Minister owned the data and could publish it in whatever form he chose, ACER ought not to have accepted the contract to produce the additional report. That is, that ACER should not have bought in. One response reported from among State and Territory Ministers was that

ACER staff had worked with the Commonwealth Minister to set the "pass" points at a sufficiently high level to satisfy his need to declare a crisis in literacy. That is, that ACER had sold out.

Whether ACER ought to have bought in is finally a matter of professional and political judgment. That ACER did not sell out is clear from the process. The "pass" points were established by the judgments of the authors of the draft benchmarks, judgments made without knowledge in advance of the percentages of students who would fall above or below them. That is a classical standard setting procedure. Furthermore, the "pass" points in the Minister's separate report were precisely those presented to the Management Committee.

This example makes clear that there are risks to reputation and independence for researchers in close engagement with policy development. Buying in to such engagement can bring professional and financial benefits but it can also bring temptations to sell out by providing what is thought to be required or, even where integrity remains intact, to charges that it has not and that the researchers have actually sold out.

Taking the Long View

Quick payoff from any attempt to link research better with policy making and practice is unlikely to be achieved. It is more important to take a long view in determining how to proceed. The keys will be to set priorities strategically, so that inevitably limited resources can be concentrated in areas of highest priority, and to work collaboratively.

With a strategic approach, it is more likely that a sufficient timeline will be established for the relevant research to have been undertaken in time to inform decisions. With collaboration in agenda setting and in the research itself, it is likely that the research questions addressed will be relevant to the concerns of policy makers and practitioners.

While building stronger relationships between researchers and policy makers and practitioners, it is also important to nurture the independence of the researchers. There is mutual benefit in this independence. For the researchers, it is essential to their reputations and the standing of their work. For the policy makers and practitioners, it gives the research an authority that can be very important in public debate about policy and practice and the grounds on which they are adopted.

There also needs to be some separation that will enable researcher-initiated investigations to be undertaken. Policy makers and practitioners cannot anticipate all of the questions to be asked in advance and all of the possible developments that might occur. Basic research is a highly generative activity. Serendipitous findings, with substantial implications for policy and practice, can arise even when the concerns of the researcher are exclusively with the development of theoretical understandings. Support for such research needs to be sustained.

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Author's note: Parts of this address draw on an address presented to the 50th anniversary conference of the National Foundation for Educational Research in England and Wales and published as McGaw, 1997.

**RESPONSES TO BARRY McGAW'S
KEYNOTE ADDRESS**

IN RESPONSE TO BARRY McGAW'S KEYNOTE ADDRESS

Anne Meade

New Zealand Council for Educational Research

I would like to start by expressing my appreciation, and congratulating Barry, for the clarity and comprehensiveness of his paper. The definitions served to focus us on education and on educational research. There was a timely reminder that educational research is better described as a field, not a discipline; followed by a summary of different research traditions. I was most interested in the descriptions of reviews of educational research in Australia, and your analyses in relation to the responses—positive and negative—and the outcomes of the reviews. The final section on connecting research and practice raises points and questions which are likely to become themes in our discussions today.

I intend to respond from an NZCER perspective for most of the time, and, at times, take a wider view. My response follows the structure of Barry's paper.

When meeting with directors of educational research institutions elsewhere, I have been struck by the focus on educational research **and** development (R&D). It is very apparent in Europe, where I seldom heard anyone talk last year about research, instead the stock phrase was "research and development"—perhaps heavily influenced by the OECD Manual (1992), quoted by Barry? The phrase is also often used in the Asia-Pacific region. This in itself suggests that a type of "concentration of effort" is occurring, at least in research institutions.

The key elements of R&D in the OECD definition are, "creative work", "an increase in the stock of knowledge", and "new applications". Their sub-categories of R&D however, do include *basic research* without any particular application or use in mind. The Australian Bureau of Statistics' definitions of basic research sound a little more utilitarian—*basic research* is expected to generate "useful discoveries," and *strategic basic research* is toward "knowledge necessary for the solution of recognised practical problems."

For NZCER, a focus on R&D has been evident throughout its history, although our documents seldom use that phrase. From some studies the applications have been for classroom practice or school organisation, from others the applications have been strategy and policy oriented. Dr Beeby, the first Director of NZCER, set an agenda for NZCER of curriculum and assessment studies, and policy studies. That agenda has endured for over 60 years. The most widely used applications for practitioners in the past decade or two have been our *PATs*, *Spell-Write*, and the *Basic Māori Word Lists*. A theoretical work which has had widespread take-up this decade is *Thinking Children*, which is part of the Competent Children longitudinal study. The latter study, and the series of studies on the impact of the educational reforms, have both had useful knowledge in them for both policy and practice.

While this, or any other type of research, has not been explicitly sought by Governments in return for NZCER's core grant, it is likely that NZCER governors and Directors have been conscious that useful research is more likely to keep its main stakeholders satisfied.

Nowadays, our planning documents recognise that our publishing niche is research-based resources. This choice of the term "resources" rather than the wider term "publication" is an interesting indicator of a focus on application and usefulness.

Reviews of Educational Research

To my knowledge, there have been no nationwide reviews of educational research in New Zealand. There has been at least one review of NZCER by Robin Williams in 1989. He recommended,

- more Māori on NZCER's electoral college,
- external and NZCER Board triennial reviews of the programmes,
- 80–85 percent of NZCER's income be its core grant, the balance coming from contracts and elsewhere,
- a Ministry fund disbursed by a committee of Ministry and independent members to research providers,
- some internal reviews to examine costs,
- a higher proportion of contract researchers,
- a concentration on a limited number of main themes,
- provision of a central data base on New Zealand education research, and
- continued support to outside researchers.

A large majority of these recommendations have happened to a greater or lesser extent, but not because of a deliberate implementation programme; rather because most of the ideas have merit. For example, you will see in your conference pack information about a modern-day version of the central data base on New Zealand education research which our Library Information Service has initiated this year on the Web. I cannot resist saying that these days our core grant is a minority share of our income—not the Williams' proposal of 80–85 percent. *

NZCER does not experience 3-year reviews, although we have developed a strategic plan which spans 3 years. Thus, self-review occurs at regular intervals. As a result of these reviews, we have refocused our Māori research on Māori education, and extended our four main programmes to encompass IT and education projects, and projects on the education of migrant and ethnic minority groups. Work on special education has also begun to grow because it has been identified as a priority area. Nowadays, in an era of Purchase Agreements, NZCER considers Government results areas in its environmental scanning to identify priorities for its work programme funded by the core grant. Is that linkage appropriate or not for an independent research organisation?

Educational research at large is encompassed by the Government's triennial reviews of priorities for public-good-funded (PGSF) social science research. NZCER coordinated with NZARE to respond to the last of those reviews. We believe joint action had some impact on having education become slightly more visible in the social science strategy documents.

About a week from now, the Government's views on social science research, following the Hawke report on the social sciences, should be made public. What will be included in the Government's proposals (decisions?) for managing the social science enterprise? The educational research constituency should be particularly interested in any decisions about our access to PGSF funds for educational research. Management in the Foundation for Research, Science, and

Technology has been telling NZCER, and other educational researchers, that any proposals for projects where the main outcomes are directly appropriable by those in the education sector will not be considered for Foundation funding. Will Government have a different policy viewpoint?

Barry McGaw said that the general review of educational review initiated by the Australian Research Council—the equivalent of the New Zealand Foundation for Research, Science, and Technology (FoRST)—emanated from criticisms from the educational R&D community about the adequacy of funding for its enterprise. The quantum of FoRST funding for mainstream educational research in Aotearoa is virtually nil. Probably the main exception has been the series of surveys by NZCER to evaluate the impact of the *Tomorrow's Schools* reforms. What should we, collectively, do if the view persists that Vote Education is to be the sole source of Government funds for educational research? Should we focus our attention on the Ministry of Research, Science, and Technology, or on the Ministry of Education, if we have concerns, like those expressed in Australia, about the adequacy of funding for educational research? Given the Ministry of Research, Science, and Technology's stated strategic interest in knowledge as a primary commodity of the future, isn't the concentration of educational research funding in Vote Education contrary to the rhetoric?

And there is another area of uncertainty. What will happen to funding for educational research in the tertiary sector if the proposals for further reform in tertiary education become policy?

Educational Research Developments in Aotearoa, New Zealand

In Aotearoa, the locations of educational research activities used to be predominantly tertiary institutions (mostly universities), NZCER, and the Ministry of Education. Teacher researchers, and a tiny handful of independent researchers rounded out the constituency. In the 1990s, the constituency has become more diverse. A study of the Ministry of Education Research Section's most recent annual report indicates a growth in independent researchers, colleges of education, and polytechnics with Ministry contracts. NZCER continues to be there too.

Another indicator of diversity is our wider range of collaborations. For example, NZCER now works with education Crown-owned entities—new entrants to the research enterprise, and is in discussion with colleges of education and polytechnics about future possibilities for joint work.

A Funding Framework

In the last year or so, it has become evident that there is a shrinking pool of who funds NZCER's or joint contracts. As stated earlier, FoRST has rebuffed educational researchers, and the Crown-owned entities and departments, such as the Education Review Office and Te Puni Kokiri, have no research funds. In this era of accountability for using funds to meet service delivery or policy advice objectives, finding pockets of funds for research is seldom feasible. If the only pool is that provided by the Ministry of Education, and if that pool is for policy-related research, this has the potential to stultify the educational research effort. Working for a range of different clients or having support from a range of funding bodies, is important for maintaining an eclectic approach, and is likely to result in the formation of different multidisciplinary teams. These are practices which Barry McGaw identified as important for strengthening research efforts.

This analysis suggests that a new and potentially limiting framework for educational research has evolved in recent years without debate or, I suspect, any conscious decision by policy makers.

The framework is a funding one. It connects research to policy, not only on a project basis, but at the macro level. It connects them by the criteria the Ministry of Education uses to tender or contract projects. Therefore, learning more about these criteria, and having an opportunity to debate them, is of considerable importance to the educational research constituency, *and* to the education sector at large I would suggest.

The funding framework has another consequence as well. As educational research has become more commercial, through an increase in contract projects, and through Purchase Agreements required of organisations such as NZCER, it is very difficult to find the resources to induct new researchers or to foster research. NZCER has a long and proud history of administering and supporting Research Fellows. I cannot see how we can support them in the future. Di Dunkin, J R McKenzie Senior Fellow—here today, and Maureen Wilson, the Beeby Fellow, could well be the last recipients of any Fellowships associated with NZCER. How too are we to support newly appointed researchers, who need extra time themselves and from senior researchers? Their needs conflict with tight deadlines. This is of considerable concern for capacity building, because I regard NZCER as an excellent training ground for research professionals. Will the same tension become more evident in tertiary institutions as well, if the green paper becomes policy?

Strengthening the Research Effort

On a more positive note, the expansion of the number of tertiary institutions and establishments carrying out research activities is likely to be useful for developing educational research capacity, and for maintaining eclecticism, although it may not always strengthen the overall enterprise. Initially, overall efforts could be spread more thinly, as those with research experience and expertise are drawn into training and supporting new researchers, with less time to carry out research projects themselves.

At this conference, the biggest groups of participants are not from universities, but from other types of tertiary education institutions or are associated with other forms of adult education. I am curious to know whether you are here because you are newer entrants to the research enterprise and are keen to network, or because you want to influence NZCER's or the Ministry's agenda, or because you want to discuss adequacy or management of research funding, or all of the above? Or none of the above?

A gap NZCER has identified on several occasions, but has not been able to adequately address, is research on post-school education and training. Will the extension of research activities into a wider range of tertiary institutions and establishments fill that gap? Do we leave that particular research agenda to the market place? Or are there approaches which could be taken to establish key agenda issues collaboratively and or coordinate our research endeavours so that we don't all "flower in summer and have bare patches in the autumn?"

Improving links

Earlier this year, I suggested to a forum of providers of teacher education, that it should be possible for their federated organisation to shape an agenda for teacher education research for the next few years. If that were agreed, then leaders in its constituent organisations could guide their research activities to fit into a coherent programme. Is this feasible? Is it desirable?

I have raised the topic of research on teacher education because I hold very strong views on the importance of teacher education and research on teacher education. I regard this as one area where a better connection between research and policy and practice is a priority. Another area is Māori education.

I look forward to hearing others put down their suggestions.

SELLING NO ONE SHORT: CONNECTING POLICY AND RESEARCH IN AOTEAROA/NEW ZEALAND

Lynne Whitney
Ministry of Education

The theme for this seminar is priorities in educational research. For some this will trigger a debate on what areas in the field of education we need to focus on. For others it might prompt a discussion on how we adequately fund educational research. But working in the Ministry of Education research team my priority is to connect research with educational policy development and implementation, and, in the process, sell no one short. My response to Barry McGaw's (1997) paper is centred around the theme of the policy-research relationship and with particular reference to those policy makers developing national policy within the Ministry of Education.

In the introduction to his paper Barry McGaw proposes that "if priorities for educational research are to be established, there needs to be a realistic and shared expectation of what might be achieved as well as consensus about the priorities themselves. There also needs to be a recognition of the legitimate differences in the perspectives and values of researchers, on the one hand, and policy makers and practitioners, on the other." (McGaw, 1997, p.4). I happily subscribe to both these propositions. There needs to be a realistic and shared expectation of what might be achieved. To advance to this position we need a process which works towards a consensus about what those priorities are. But to really gain, in this instance, the process needs to acknowledge and take into account the different methodologies or cultures of policy makers and researchers.

Policy and Research: Putting the Two Cultures In Perspective

Barry McGaw (1997) writes that reviews of educational research in Australia revealed that the connection or linkages between research and policy were weak. I do not find this result surprising. But to be fair to the Australians we should put this finding in its proper perspective.

We can do this by looking at the report from a series of international seminars on educational research and development run by the Organisation for Economic Co-operation and Development, the OECD, in the early 1990s. The authors of this report (1995) note that the potential contribution of educational research and development in improving policy and practice was not fully realised, and attributed this, in part, to the frequently problematic interrelationships between policy makers and researchers. In New Zealand the contribution of researchers is enhanced through the lively educational networks that bring policy maker and researcher together in various forums. The challenge is to maintain and extend this contribution.

The relationship between policy makers and researchers has been a subject of much debate and even research. Caplan (OECD, 1995) and his colleagues in the United States identified three types of theory constructed to explain the gap between policy and research:

- *policy-constraint theory*: policy systems or policy makers are unable to handle the *rational* findings of educational research;
- *knowledge-specific theory*: scientific research is limited and located within a small framework of theories and empirical variables;
- *"two communities" theory*: policy makers and researchers adhere to different cultures each with its own values, norms, and cultures.

Barry McGaw (1997) refers to these two communities in his paper. "Individuals" he says, "are seen to participate in communities of discourse which shape the behaviour of all participants. The research community has a scholarly discourse within which theories are developed and accepted modes of challenging theories established. The community of policy makers also develop(s) a common language which shapes individual's interpretations of their own practice and the possibilities of their work" (p.8). In addition, he argues, educational research is expected to "generate different kinds of knowledge reflecting the different questions with which different groups approach it" (p.20).

Where there is no recognition of the legitimate differences in the perspectives and values of *researchers* by *policy makers* this can result in educational research being typified as fragmented, irrelevant, low in quality, and low in utility.

Where there is no recognition of the legitimate differences in the perspectives and values of *policy makers* by *researchers* this can result in educational policy development being typified as ignoring sound advice, data free decision making and disconnected from real world events.

The OECD (1995) argues that to maximise the contribution of educational research the relationships between policy makers, where they are the commissioner of research, and researchers should be of negotiation and exchange rather than the subordination of one group to another.

The Contribution of Research to Policymaking

To get us thinking about the range of contributions that research can make to the policy development process, here is a simple framework used by the Centre for Educational Research and Innovation (CERI), *Educational research and development: trends, issues and challenges* (OECD, 1995). This organisation described roles for research in assisting policy makers develop informed policy:

- *analytical and explanatory*: educational research observes, reveals, and explains educational facts by analytical, empirical, or any other pertinent methods;
- *synthetic*: educational research establishes syntheses of scattered and fragmented pieces of research knowledge and thereby contributes to theory building and the establishing of a knowledge base for educational research;
- *evaluative*: educational research offers support and control to education programmes and reforms;
- *prospective*: educational research, on the basis of given policy objectives, devises concepts and models for the future development of education;
- *consultancy*: educational research has consulting functions in educational planning and development processes.

I would like to think that the creative ones among us could identify a function that the Swiss failed to include in their framework.

How Can We Maximise the Contribution of Research to the Policy Development Process?

So we've thought about the type of contribution that researchers can make and the type of research-based information that can be delivered. But this in itself is not enough. In order for the research to add value in the policy development process any apparent gaps between policy and research, or, more accurately between the policy and research communities, need to be addressed.

And so we turn again to the OECD (1995) who have drawn on the experiences of many member countries in their recommendations for creating and sustaining productive and enjoyable relationships between policy maker and researcher. *Educational policy systems* need to be good performers in the complex process of identifying problems, setting, in consultation with the broader community, research agenda, and being active receptors and implementers of results. *Educational researchers* should produce results which show reflectiveness on scientific theories, practical insights, and policy constraints.

The summary report on the OECD seminars (1995, p.93) asserts that "for policy makers to become interested clients they must be involved in the setting of objectives, timelines and expected type of outcome of research. This would require a collaborative and exchange relationship in which both sides accept and benefit from the distinctive elements of each other's functions in a joint enterprise. At the same time, policy makers must help researchers retain their intellectual independence. They must recognise that not all the work they fund will have immediate or apparent policy pay-offs. This would make it possible to attract and retain high quality researchers to policy-related research."

So Where to From Here?

In the Ministry's Research and International Section we take our role in improving communication between researchers and policy makers very seriously, whether the researchers are based at the Ministry or in the wider educational research community. We work to bridge the gap between the policy and research communities by trying to establish a basis of mutual respect.

Underpinning the work of the research team are the values of achievement, co-operation, integrity, responsibility and accountability, and leadership. A priority for us is to make our process transparent to all. Not everyone will agree with the choices we make, but at least they should have the opportunity to know why we make them.

The Priorities of the Research and International Section

I would like to end by sharing with you the priorities we have set ourselves as a research section for 1997 and 1998. You will hear from Howard Fancy later today about how the Ministry is currently thinking about how policy and research priorities are being set for the medium and long term. The research section is an integral part of this process.

However, within the research section we have set ourselves three clear strategies for increasing the relevance, utility, and timeliness of research-based information. These strategies are: *developing linkages*, *setting priorities*, and *disseminating information more effectively to a range of consumers*. These may seem relatively simple objectives, but once you start to unpack them and look at the range of communities and different levels (including international) at which the linkages can operate and the variety of consumers of information and styles of reporting, the complexities begin to emerge.

Finally, I am laying down a challenge to the policy makers and to members of the educational research community, including the Ministry team, that are here today. This challenge is to recognise, as Barry McGaw proposes, the legitimacy of the values and methodologies by which each of us is driven and to sell no one short, least of all the students, teachers, principals, parents, boards, and others who are ultimately most affected by our decisions.

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CONTEXTUALISING THE CONNECTIONS

Stuart McNaughton

School of Education, University of Auckland

Engā rangitira mā, tēnā koutou. He nui ngā mihi ki a koutou. Tēnā koutou, tēnā koutou, tēnā tātou katoa.

Barry McGaw (1997) provides a very useful platform for discussing research priorities in New Zealand. Among the contributions his paper makes is drawing together a technical language about research types, methods, functions, and outcomes. We take as a basic psychological principle that developing understandings through common discourse enables effective learning to take place. For the same reasons effective connections between researchers and policy makers depend on sharing ideas about practices.

Defining research has other purposes too. In the current context of developing policy about the work of the tertiary sector (Ministry of Education, Tertiary Education Review Green Paper) the idea of what counts as research becomes important. Contributions by agencies such as NZQA and CUAP to this process mean that policy makers are aided in their ability to differentiate the worth of different forms of research and scholarship. It is out of this context too one can spot gaps and inconsistencies. For example, in the context of clarifying the nature of scholarship and research for promotion purposes, the University of Auckland has recognised the expertise associated with kaupapa Māori practice, the defining of which Linda Tuhiwai Smith has contributed considerable scholarship to.

Having made these introductory comments I want to turn to a number of issues which Barry's paper raises and then turn as he does to the matter of setting priorities.

Contexts of Apprenticeship

In 1994 I represented NZARE at a similar meeting organised by NZCER and focused around issues of research (McNaughton, 1994). I admitted to being a developmental psychologist who was concerned for contexts within which research expertise developed. I still have that concern and it is to questions about the socialisation of researchers which are raised by McGaw's paper that I would like to turn. It is still the case that the primary site for developing expertise in educational research is through research-based graduate programmes and research programmes in Education Departments or Schools of Education in Universities although this is changing too. A number of policy changes have put pressure on the effectiveness of all these sites as contexts for research apprenticeship.

One is general — the pressure on universities created by reducing subsidies and the consequent effect of EFTS driven decisions about funding, staff, and programmes. The other is specific to

educational research, and is associated with an overheated market for teacher education. Competition in providing teacher education has produced innovation, an outcome recognised by the Teacher Registration Board (TRB, 1997). But there is a desperate need to rationalise institutional strengths to achieve the coherence, stability, and security needed for on-going research projects. Competition, courtship, or consummation of mergers has placed pressure on all of us to contribute even more than we have done so already to excellent teacher educational programmes. For those engaged in research this is as well as initiating and working on research programmes and heeding the mentoring needs associated with them. These of course should not be pitted against each other and contexts should be created for mutually constituted activities. My argument is not against developing innovative teacher educational programmes and greater contributions of research expertise to this enterprise. Rather, it is an argument for organisational contexts which foster interdependencies for excellent teacher education and excellent research programmes and the development of researchers. It is also, incidentally, an argument against the waste of resources in an overheated market.

In relationship to this concern, some of the problems identified from the reviews described by McGaw (p.9) should be heeded. They include a relatively low application rate for social science research funds by educational researchers and low perceptions of educational research by funding agencies because of the creation of institutions which do not have a research infrastructure (McGaw, 1997, p.12).

Contexts for "Insiders"

There is a question of epistemology here too, which connects these comments about research training with other comments in McGaw's paper. The reviews of educational research in Australia identified broad criteria for the national research agenda. These included research on *social and economic needs*, and *equity and social justice*. A number of research priorities over three years have been developed with these in mind. They include (for example) the teaching of thinking skills, and language and literacy education (p.15).

I assume that the criteria dealing with equity and social justice run through the specific priority areas. This is indicated in the list of priorities which the National Research Advisory Council drew up in 1995, partly as a response to the review recommendations. The priorities include research on the needs of special groups, in the first instance on Aboriginal people and youth (p.18).

The connection between these criteria and priorities and the earlier comments on developing student researchers is this. It is a question about where the "insider" knowledge (Greenfield, 1995) in research on cultural processes comes from. A major challenge still confronting those of us engaged in educational research is to provide effective pathways for Māori and Pacific Island students into research-based graduate programmes.

This is a matter of equity. But it is also a matter of epistemology. Research from a number of discipline bases demonstrates how our theories of thinking, of language and literacy, indeed each of the priority areas proposed in the Australian reviews, requires insider knowledge in order to determine the nature of the "problem" and the nature of the "solutions". I was worried in 1994 about access to graduate supervision. I am worried even more now about access to research-based courses full stop. The increase in fees, the differentiation of fees, the spectre of loans, the

limitations on allowances and Study Right, and other pressures all mean that there is a crucial need to extend student support systems. It is particularly important to provide research funding through targeted studentships, and scholarships, in order that insiders can be researchers too.

Creating a Research Culture of Intervention

One of the types of research identified by McGaw is called *interventions and evaluations*. This type takes "social change as its object of inquiry and seeks both to evaluate the overall effectiveness of interventions and to determine which aspects of an intervention, singly or in interaction, are responsible for positive or negative effects. Because the objects of study are complex social interventions, attention must be paid to specifics of context, including historical and cultural factors that may influence the implementation of planned interventions" (p.8). The paper identifies a range of possible methodologies and deliberateness in the manner of conducting interventions.

My sense is that we are in need of more planned interventions. Not only are these needed; I believe we have the expertise and the accumulated knowledge to intervene in some of the major sites of educational concern. Here are examples of my optimism.

There is a tradition of providing rich descriptions of different dimensions of education in New Zealand. Some of these are descriptive analyses of what Graham Smith has termed the educational crisis facing Māori. Others report on educational issues facing schools in South Auckland. There are qualitative and quantitative studies summarised in a variety of Ministerial and project reports such as the Royal Commission on Social Policy and the descriptive baseline study for the AIMHI project. There are the IEA results and the remarkable re-analyses of national factors associated with literacy achievement. There are analyses by Māori educational researchers in theses, reports, and academic articles. All of these add to an extensive descriptive research base.

Out of all of this, and the expressions of concern and demonstrations of success (for example, in kura kaupapa Māori) there exists a basis for planned interventions. Some of the concluding comments in McGaw's paper are useful here. He argues that there are ways that the research enterprise can be strengthened. These ways include maintaining eclecticism (epistemological or methodological hegemony will limit research); concentrating effort (concentrating research funding) and building multidisciplinary teams (which bring together a variety of substantive and methodological perspectives). What do these mean for us? How do we achieve eclectic and multidisciplinary research teams? How can research funds be effectively targeted?

We don't have much of a tradition of doing this in a systematic and planned way, that might provide guidelines.

But here are some observations derived from the available experiences. Interventions are by their very nature problematic. Even more than other programmes one needs to be prepared to get it wrong, learn from mistakes, create feedback into ongoing programmes. This is captured in the old idea of engaging in systematic replications across sites, across tasks etc. If the stakes are so high that you have to get it right first time, or only get one shot at it, then researchers become advocates rather than reflective critics of their work, who reconstruct and refine throughout the research process. This is a danger sign, when researchers need to become their own advocates. This happens when research-based programmes are designed to deliver a research product which is purchased. Where research is "purchased" to inform policy there is a potential for the role of research to be rationalisation after the fact, or purchased to meet a requirement but unheeded.

It seems to me that the development of research centres and institutes provides a robust and generative vehicle for interventions (for example, Children's Issues Centre; IRI). Their development is a good sign. They are available as conduits for intervention and to act as research sites for evaluating initiatives that take the form of interventions. What we need to watch is that these sites are not so insular, mono disciplinary, methodologically restricted, competitive, and forced into self advocacy that they cannot be effective sites for intervention strategies or informative evaluations. This may happen if we find ourselves in an overloaded market here too. In this respect, it is pleasing to see the government initiatives creating a context for widespread educational interventions in South Auckland. These could be tied in with multidisciplinary, multiperspective research groups, in a mutually beneficial way.

Concluding Comments

The exercise of setting priorities is fraught. However, McGaw's paper suggests that this could be a very useful activity for us to engage in. I agree. I think this is a very useful suggestion when resources are limited, but the "us" here is critical. A wide group is needed in which communities of interest should contribute.

As a next step perhaps NZARE could provide an appropriate site for continuing discussions.

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OPEN FORUM

Issues Raised in Discussion After the Opening Address and Respondents

The main issues raised by speakers from the floor were:

- ☐ The impact of political decisions on the development of policy, and its alteration.
- ☐ The need to commission appropriate and sometimes basic research in time for it to be able to inform policy development.
- ☐ Policy makers' and government educational agencies' apparent lack of use of, or ignorance of, well-established bodies of existing research, for example, on teaching methods.
- ☐ Government officials have a responsibility to draw politicians' attention to relevant research, even if it is contrary to the politician's own beliefs.
- ☐ The need for policy makers to have time to keep abreast of research, and in touch with researchers.
- ☐ The need for researchers to become more active in bringing research findings to the attention of policy makers and politicians.
- ☐ The importance of informal contact between policy makers and researchers, and the value of verbal discussions.
- ☐ The importance of the inclusion of educational researchers on funding agencies' advisory boards, the importance of improved proposal writing, and keeping a balance in review of fostering and critiquing.
- ☐ The importance of the inclusion of Māori representation amongst policy makers and funding agencies.

**POLICY MAKERS' EXPECTATIONS: PRIORITIES
FOR EDUCATIONAL RESEARCH**

**USERS' EXPECTATIONS: PRIORITIES
FOR EDUCATIONAL RESEARCH**

USERS' EXPECTATIONS: AN NZEI PERSPECTIVE

Joanna Beresford

Kia ora tātou

At the outset I'd like to congratulate NZCER for its foresight in organising this conference and in so doing providing an opportunity for users to state our expectations of educational research. Too often in the past decade have practitioners been excluded from involvement in the development of policy and priorities that they are subsequently required to implement.

The conference is particularly timely given the Prime Minister's speech to the NZIER as reported this morning. His advocacy of increased government assistance to private schools appears based on gut instinct—educational and political—rather than what the evidence shows brings sound educational outcomes.

I enjoyed the comprehensiveness of Barry McGaw's address. His definition of policy constraint theory—"policy makers unable to handle the rational outcomes of research"—is particularly apposite at the moment in New Zealand.

NZEI Te Riu Roa represents over 32,000 educational practitioners—people committed to securing the best possible deal for our youngest citizens within a high quality non-profit education system.

There are a number of key areas I would like to touch upon in delineating NZEI's expectations about educational research. In doing so I want to state the view that there needs to be a place for different levels of research—from pure research that is given so little support in New Zealand—through to research arising out of the experience of practitioners. Research needs to go beyond the "square". It seems harder and harder to secure funding for research that questions prevailing assumptions. There is a need to "open up" research and resist going down an increasingly narrow track. On this, NZEI has tried to fill some gaps with efforts such as the Innovative Use of Support Staff in Schools Project and our current Primary Research Project.

There needs to be a robust and honest examination of the fundamental assumptions behind current educational policy. As part of this, the insufficient account taken of research in policy development needs to be addressed. One can well sympathise with the view that there seems little point to research if it's ignored in the policy development process.

The emphasis needs to be on long-term longitudinal research projects, not short-term snapshot analyses. Otherwise the danger is evaluative research of minor programmes dominates and we become deprived of the crucial data needed to properly address, for example, the impact of "Tomorrow's Schools" policies on our primary and intermediate schools.

The monitoring of national data should be increased. On this issue I have a number of criticisms of the status quo.

For a responsive education system it is surely critical that we have the data available to analyse patterns and best inform our approach. I'm not arguing for policy driven research but the lack of

research and data collection by the Ministry of Education over the last eight years has not served us well.

The Ministry of Education should be producing regular profiles of a huge range of areas:

- educational spending (and as Don Gilling observes in his report, this material needs to be more up-to-date than the School Sector Report);
- staffing movements;
- roll changes;
- adequacy of school funding;
- support for schools;
- participation and access in early childhood education.

Somewhat too late, but on the positive side, the Ministry of Education's funding of the National Education Monitoring Project at last provides base-line information of what children can do. When the cycle is completed in 4 years we'll know how healthy our system is.

In a practical sense what this all means is that we need to be able to use existing material—which should be widely available and transparent so everyone can discuss it—to provide common ground for the analysis of policy and what needs to happen next. That this wasn't done is why we are now facing a critical staffing supply situation in primary schools requiring the importation of over 1,000 teachers and the granting to hundreds of others of Limited Authority to Teach status. The staffing shortages in our primary schools provide a dramatic example of what can occur when the need for longitudinal work isn't recognised. If policy is better based, that is if it draws on the research, it would be used to prevent crises rather than coming to them afterwards to see how fast the ambulance got to the bottom of the cliff.

So, if we're concerned about quality we cannot ignore data and refuse to discuss the best responses to it. Unions need to be involved in identifying research needs and in the development phases of key research. Cynical consultation exercises simply on the results will rightly always be criticised.

Representing key providers and practitioners in the education system, NZEI considers it an absolutely legitimate expectation to have direct representation on groups deciding what needs to be monitored and how, as well as discussing findings and trends.

It is through such a process of practitioner involvement that the data can inform the best policy development to enhance educational outcomes.

Not only are improvements needed in the process of monitoring data and trends, but we also need to address the gaps in what is monitored.

Linda Smith spoke about Māori education. I won't cover the same ground but this is so obviously an area where the development of effective policies and practices is severely hampered by the paucity of research—and in this, as in other areas such as South Auckland, the reluctance of policy makers to act on the evidence there is.

Turning now to present policy, we do need to examine the fundamental assumptions that lie behind it.

- that competition and managerial accountability are the best ways to motivate people to get systemic efficiency and improve education for disadvantaged groups;
- that schools are somehow isolated from society;

- that we can, for example, ignore the growing pastoral demands on principals because crucial government services are eroding/underfunded, and expect principals to carry unreasonable workloads. (If we can have an interdepartmental group on suicide and truancy, why not one on a better integration of services and funding etcetera?)

At present not enough research is being done on policy impacts. Agencies such as the Education Review Office and the New Zealand Qualifications Authority are underfunded and end up doing it themselves. So we are not really getting contestability of advice—not for the sake of it, of course, —but advice which is more widely founded than the present government framework.

What continues to dismay me is the extent to which ideologically driven policy makers ignore the research evidence to promote their narrow world view. One fundamental assumption we've seen recently is that early childhood education, not being part of the compulsory sector, is somehow not as important. The most startling example of this was by those promoting the exclusion of kindergartens from the state sector. Backgrounders prepared for Government speakers on the State Sector Amendment Act, and the official papers, revealed the extent to which information was misrepresented (*Before 5*); and research evidence ignored (for example the proportion of low income and Māori and Pacific Island children attending kindergartens); all in what I viewed as very unethical attempts to justify the unjustifiable.

I have yet to receive a reply to my 5 May letter asking how the Ministry arrived at its view that in the long term "it would be better if kindergartens and teachers were not covered by the State Sector Act".

The Chief Review Officer's assertion that there are "large numbers of incompetent teachers in our schools" is another example of a "gut instinct" or ideologically driven view rather than research-driven educational approaches. Evidence sought by NZEI is yet to be provided by the Education Review Office for claims made in April to the Parliamentary Education and Science Select Committee.

As far as the links between accountability systems and school improvement are concerned, teachers accept the need for external review. What they don't wholly accept are the processes currently employed to give effect to this.

To improve the quality of teaching and learning—something we should all always strive to do—criticism needs to be soundly based. Unsubstantiated assertions or a punitive approach encourage a defensive, not an open, response.

The results of the Third International Mathematics and Science Study (TIMSS) for students at the middle primary level showed New Zealand has a way to go before we can foot it with countries of a similar culture.

The TIMSS study identifies clearly many of the complex factors that interact and influence achievement. For example, there's a strong link between low socioeconomic status and low achievement. In low socioeconomic homes there are fewer books, less security, lower parental expectations, and so on. The data indicate that New Zealand students are more likely to experience bullying and/or theft than students from other participating countries and that levels of both are particularly high in New Zealand.

We would all like to do what we do well, or better. Education is complex. Significant change is not a simple matter of adding or subtracting one factor. It doesn't fit a neat input-output model.

But we do need to understand some of the crunchy issues better. Such as:

- how to engage students' interest and commitment to education;
- the development of new teaching and learning resources and foci;
- how to bring school and home closer together (but not seek to make them identical—children need different but complementary worlds);
- how to ensure teachers have viable workloads to maintain their focus on teaching and learning.

The establishment of a ministerial taskforce to address these and other issues thrown up by the study is a positive sign. May we now look forward to

- measure to address bullying and disruptive students (and an end to cut-backs in the Specialist Education Service and support for schools);
- more men attracted into primary teaching (by pay parity and appropriate remuneration for all teachers relative to other professionals in the wider labour market);
- teacher workloads made manageable to allow a proper focus on teaching and learning;
- etcetera, etcetera?

Or instead, is the research to be set aside and are we to endure calls for increased taxpayers' subsidies to private schools, curriculum change, and retesting of students, etcetera, etcetera?

NZEI members will watch with interest and continue their efforts to contribute to best policy.

Now, in conclusion and to reinforce pleas made earlier, we need to ensure

- that the focus of research is to inform policy, not justify it;
- increased funding for truly independent research;
- we have the basic information;
- we are committed to translate that information into practicalities;
- we constantly learn, ask questions, be prepared to modify, and are able to respect the integrity of both the process and the data;
- we look longer term and resist a short-term narrow focus;
- we are inclusive of practitioners in the identification of research priorities, how research is carried out, how it's monitored, and what use it's put to.

Nō reira, tēnā koutou, tēnā koutou, tena tātou katoa.

USERS' EXPECTATIONS: A NEW ZEALAND POST-PRIMARY TEACHERS' ASSOCIATION PERSPECTIVE

Bronwyn Cross

The problem with identifying the priorities for educational research in the next century is that a variation of the golden rule applies—just as they who have the gold rule, so it is in research—those who have the power determine the priorities. The difficulty this presents is that it doesn't much matter what we decide are to be our research priorities when the value ascribed to that research is determined elsewhere. I want to start by considering the nature of the political context which privileges some research outcomes over others and from there seek to identify specific needs.

One of the most reprehensible aspects of the New Right reforms in education has been the co-option of research to serve political ends. While the practice of using research selectively has never been unusual, what has been distinctive about the last few years has been the systematic way that research contracts have been used to purchase politically correct outcomes. I use the term "politically correct" to describe the orthodoxy of the economic rationalist model which is wheeled out on all occasions to provide the same generic cure-all for any contingency. It seems that the only place where the free market does not hold sway is in the realm of ideas.

If this seems to be an extreme case of conspiracy theory, consider the most recent Smithfield Report, aptly named "Polarisation". It was left to languish for some months in the Ministry of Education and released only when sprung by a journalist—and then without the recommendations which called for policies to address the growing inequalities between schools. The Association has had similar experiences in the past when research reports critical of bulk funding, for example, have been withheld for a period of time, presumably because it did not suit the politicians to have such information in the public arena.

At least though, these reports exist. There is a real danger when research is apportioned via a competitive contract round that the agency disbursing the funds can influence the conduct of the research and certainly the selection process. Even if this process were scrupulously monitored to ensure the independence of the work, it is still possible for a subtle economic pressure to be exerted on the researchers.

The evidence confirms that the old aphorism "s/he who pays the piper calls the tune" is all around us. One of the reasons PPTA has commissioned its own research into the operations of the Education Review Office is because of concerns that the purchase agreement with the Minister of Education imposes a financial obligation on ERO which effectively prevents it from critiquing Government policy. Although the research is not yet complete, it does observe that under the ERO methodology, "a good school is one that can demonstrate that it is implementing government policy (even if that policy is flawed.)" This research is also critical of the National Educational Evaluation Reports which the Education Review Office is required to produce ("supported by research where

necessary") as part of the purchase agreement because they are not the neutral documents that research should be. They are produced on an economic rationalist template which assumes that the combination of choice, competition, and the market will ensure high-quality schooling. Not only is this particular perspective not admitted, the fact that it is a highly-contestable ideology is never acknowledged either. The result, as the PPTA research notes, is that the reports "carry a contradictory view of schools and students. On the one hand they (schools) are constructed as asocial and apolitical. On the other hand, we are introduced to the notion of a good teacher and a good school through a middle-class set of lenses." A lens, moreover which assumes that "failing schools" are failing deliberately.

As we have already seen in the health sector, the aim of the privateers is to extract a profit out of the state provision of health and education. One of the techniques for advancing this agenda has been the deliberate fostering of a sense of unease amongst New Zealanders about the quality of their national health and education systems in the expectation that they will, albeit reluctantly, take out medical insurance and make private arrangements for education. Once this practice is widespread, it can be used as a rationale for reducing funds in the public sector. It is essential that teachers and the public have access to research and education which empowers them to understand the relationship between policy and educational outcomes, otherwise they become pawns for manipulative politicians.

I give you exhibit 1: Act Education Spokeswoman, Donna Awatere-Huata's analysis of data pertaining to reading standards in New Zealand. She and Richard Prebble were similarly moved by the TIMSS reports (Third International Mathematics and Science Studies) but not from the perspective of how we might use them to improve maths and science education in New Zealand but as a cheap political stunt. If they had read the whole TIMSS reports instead of just the news releases about New Zealand's international ranking, they may have been forced to reflect on the link between student background and achievement and from there to consider the impact of employment, housing, and social policies on educational success. Act's education policy is an answer in search of a question not an adequate response to the research.

One of the most important models for research in New Zealand at the moment is that done by the Research and Statistics division of the Ministry of Education for the allocation of the TFEA (Targeted Funding For Educational Achievement). This research has made explicit the link between poverty and educational achievement and has become so much part of our thinking that the word "decile" has become part of the educational vernacular and is making its way out to the wider public. The newspapers which publish examination league tables now include decile levels as well, along with a disclaimer to the effect that examination results do not necessarily reflect the "value-added" elements of schooling. It hasn't stopped them publishing it, but it does indicate that they feel a little uncomfortable about the misleading nature of such data. This research is important not only because of what it tells us about learning but also because it challenges the view that schools and teachers are solely responsible for student achievement and should be paid accordingly.

This then is a priority: research which disputes the absolutism of the market and assists us in gaining an appreciation and understanding of the learning process as opposed to simply measuring the outcomes. We know that our education system serves middle-class children very well but there is a reluctance to acknowledge this because New Zealand is supposed to be a "classless society".

We know too that socially disadvantaged students, including Māori and Pacific Islands students,

often feel alienated from schools. And that the key to improving our national educational performance is finding ways of meeting the social and educational needs of these students. Schools and teachers need help to find techniques, resources, and insights which can make education meaningful for the socially disadvantaged.

Reading Recovery is an example of just such a technique. As I understand it, research now confirms its success with disadvantaged students. (This will be a great relief to teachers who must feel sometimes like the ping-pong ball bouncing between the advocates of phonics and whole-language teaching. Unfortunately the relief will last only until the next contradictory piece of research emerges.) This, though is beside the point, which is that research provides teachers with assurances that their teaching practices are genuinely assisting learning, because the truth is that much of what happens in the classroom is trial and error.

Teachers need research which either assists them to change their practices or provides some certainty about the efficacy of their present practices. Unfortunately, teacher workloads are such that the ideal of a teaching profession actively engaged in action research is difficult to imagine. It is a matter of some concern that they do not have the time to reflect on their practice given that this is the hallmark of a good teacher. It also means that teachers cease to be active participants in their own professional renewal.

Although teachers have staunchly resisted the New Right onslaughts on education, it has not been without cost. The "low-trust model" of school management (bulk funding, performance pay, unit standards) has undermined the professional ethos of teachers. Teachers have been made to feel uneasy about any expression of professional judgment; insight and intuition have been abandoned and replaced with more "objective" measures. The craft of teaching has been devalued.

There is something profoundly ironic about schools paying consultants to come and talk to teachers about the latest educational fad, all the while disregarding the depth of understanding about teaching and learning present in their own staffrooms. The proposals in the Green Paper on Teacher Education, to bulk-fund in-service training will further promote a model of top-down professional development, delivered by consultants. By this means teachers are disempowered and reduced to the status of technicians (until a suitable, computerised substitute has been developed). There is clearly an important part for research to play, in supporting the re-engineering of the teaching service, by assisting teachers to regain a sense of professional ownership, autonomy, and integrity.

CODA

An eclectic collection of research topics (in no particular order):

- Continued monitoring of the relationship between economic policy and educational outcomes.
- Identification and analysis of classroom practices which enhance learning.
- Technology and learning.
- The learning process itself.
- School structures (middle schools/senior colleges, etc.).
- School administrative structures.
- School evaluation and review.

USERS' EXPECTATIONS: A TRUSTEE VIEWPOINT

Mark C. Farnsworth¹

New Zealand School Trustees Association

Preface

As the agents for the prime users of the compulsory education sector—the pupils—trustees expectations re the priorities for education research are very simple. We want to know “That *our* children are receiving the best possible education.”

Introduction

Within the framework of the 1989 educational reforms the governance/management structure of New Zealand schools underwent a major reform. Elected boards were given the task of governing their schools (Ballard, 1989), in the process making them ultimately responsible for everything that happens at a school.

At the time of the implementation of the trustee model, trustees gained, rightly or wrongly, the impression that educational researchers (researchers funded by central government) would provide timely feedback on how the reforms were performing educationally. Trustees were reassured by this impression and accepted the reforms. We had the simple, and perhaps naive, expectation that the right type of research was being carried out. Has hindsight demonstrated that our trust was misplaced?

If we reflect back on the adoption of the Tomorrow's Schools concept we were told that the concept brought with it the promise and expectation that improved educational outcomes would be realised. Parents and caregivers would be in a position to make the best possible educational management decisions because of their close proximity to the students (Ballard & Duncan, 1989). We now realise that the introduction of school-based management and the constant drive to foster self-management has not automatically resulted in improved educational outcomes (Farnsworth, 1996a). This last statement is not based on any well-documented research, rather it is a perception based on the best information available from a wide range of different sources (for example, ERO reports, NZCER Reports, STA News, NZSTA surveys etc.).

Much of the information trustees (and for that matter all parents and caregivers) receive on education comes through the daily papers. A quick review of just a few of the education headlines over the last few months makes interesting reading:

¹ National Councillor (Northland), New Zealand School Trustees Association (President, NZSTA, 1994–1996); Partner, Farnsworth Bishop and Associates; Trustee, Dargaville High School and Tangiteroria School.

- "Our damaging state education" – *Dominion*, 2 May
- "Good teacher, bad teacher" – *Dominion*, 8 May
- "Getting the best for pupils" – *Dominion*, 8 May
- "What makes teachers competent" – *Dominion*, 6 June
- "Our children are being misled by sex education in schools" – *Dominion*, June 16
- "Keeping the Treaty" – *Evening Post*, 16 June
- "Teachers snivelling critics of success" – *Evening Post*, 16 June
- "Maths in NZ: does it all add up?" – *The Press*, 28 June
- "NZ pupils behind with maths skills", *NZ Herald*, 5 July
- "Social study syllabus 'bland, safe'", *NZ Herald*, 21 July
- "Marshmallow English and the ERO", *Evening Post*, 6 August

Trustees are faced with making some sense out of a huge information load of conflicting information on the general state and health of our national education system. Much of the actual text under these headlines may include provocative, emotional statements with hard-hitting observations about educational matters. All too often little detail is given on the research, if any, which underpins the statements.

Ian Henderson² has noted that:

Trustees are bombarded with perceptions of what the public wants, needs and expects in terms of education. All too often there are suggestions that our education system is not delivering. How are trustees going to make an informed decision if the information is not based on well founded work?

Research priority:

Trustees need to know whether the Tomorrow's Schools model has actually delivered the indicated improvements in educational outcomes. If not, why not, and what are the areas which need improvement.

Governance and Management

Lynch (1996) notes that there would appear to be general agreement amongst those involved in running New Zealand schools that the devolution of management functions to the school level has worked well. How do we actually know? Is this statement just another perception or is it a statement based on well-founded research? Just how effective has the Tomorrow Schools' model of management and administration been?

Currently the trustee model is under review. Further change is in the wind. Should we even be promoting a change to the current model without first fully understanding the mechanisms and dynamics of the present model?

² Ian Henderson, *Personal communication*. Ian is a Wellington-based school trustee.

Farnsworth and Bishop³ (1997) have noted that each individual board of trustees has the potential to have its own unique signature of governance and management. They note that governance is not a simple linear (hierarchical) model; rather, it is (at a single point in time) a complex matrix interplay of a number of different functions. What are the implications of the matrix?

Henderson makes a similar observation noting that there are almost as many leadership/governance styles as there are boards. Henderson notes the need for some comparison between effective schools and the not so effective, so that effective governance management criteria can be practically demonstrated.

Owen Edgerton⁴ asks the question whether the employer role of the board is one of the key foundation blocks of the self-managing model. The employer role is one of the elements of governance which boards have considerable difficulty in coming to terms with (Farnsworth, 1996b). What are the barriers to effective implementation of a board's employer role? Can they be defined? Can workable, remedial measures be put in place?

In terms of governance perhaps one of the key questions we should be asking ourselves is did we in fact allow the implementation of major structural reforms in education without adequate, on-going monitoring and back-up, and review research? If the answer is yes then why did this happen? Were the reforms politically based rather than educationally based? How can we ever determine the relative success of failure of the Tomorrow's Schools model if there is no comprehensive baseline research?

Research priority:

Trustees need to have examples of good governance and management based on well-structured research.

What is working and why.

Ron Mulligan⁵ questions philosophically the actual need to provide examples of what is working well, pointing out that examples will/could become benchmarks rather than providing guidance. Do boards need to arrive at their own governance/management structure rather than being directed by "good practice"?

Curriculum

It is very evident that trustees are most uncomfortable in the curriculum area. This area is marked by a clear interface differentiation in governance and management—the professional versus the non-professional. A board's NAG⁶ responsibilities are difficult to come to grips with and actually practically define. What should trustees be looking for in this area? What should they be doing? What are the questions they should be asking? What answers should they expect?

³ Keith Bishop is an Auckland-based school trustee.

⁴ Owen Edgerton, *Personal communication*. Owen is a Southland-based school trustee.

⁵ Ron Mulligan, *Personal communication*. Ron is a Wellington-based former school trustee.

⁶ National Administration Guideline.

Henderson points out that parents/caregivers of primary school children have expectations in curriculum areas, for example:

- Language—written, oral, reading;
- Numeracy—basic facts, problem determination and solution, manipulation and presentation of data;
- Study skills;
- Problem-solving skills.

Secondary school parents/caregivers have similar expectations.

How do parents rate their school against these expectations? What are the most effective processes and mechanisms a board can use to help them evaluate their curriculum responsibilities?

Research priority:

Trustees need to have examples of good practice for each of the NAGs—especially NAG 1.

What is working and why.

Barriers to Trusteeship

Henderson suggests that some identification of barriers to becoming trustees should be undertaken. Perhaps with reference to different cohorts, for example, age, education, occupation, ethnic background, income, etc.

Wallace Paki⁷ has noted that Māori trustees do not participate effectively either at the local school level, be it primary, intermediate, or secondary schools and points out that much of the reason is unfortunately historic coupled with a weak social infrastructure and lower economic status. He requests that a broad research programme should need to be constructed on a defined qualitative and quantitative measure for Māori participation. Paki seeks to bring a better board balance (numbers on the board?). He holds the firm belief that this type of research be undertaken by professional expert Māori in this field.

Research priority:

That barriers to trusteeship need to be determined and practical solutions suggested

Paki's comments raise the whole matter of socio-political influences in educational change. Just how import are socio-political influences? Is educational change well founded or has it been/is it the result of political whims and/or social pressures?

⁷ Wallace Paki, *Personal communication*. Wallace is a Tamaki Makaurau-based Māori school trustee.

Roger Leslie⁸ asks the typical question trustees usually ask, Who is driving education? The government? The Ministry of Education? The so-called professionals? The people of New Zealand?

Joan Titman⁹ speculates on the effect that a breakdown in the family structure may be having on the school system. Joan points out:

Many of the students who we see in our discipline hearings have complications in the home which have usually contributed to the way they are currently behaving. Staff in schools are spending an increasing amount of time on those areas. The impact on the day-to-day operation of a school can be considerable and it can affect the education of many other students apart from the one taking up the time of the board.

Research priority:

- What are the social expectations of a school?
- What are the areas they can effectively cover?

Teacher Quality

Trustees are vitally concerned about the quality of the teachers who staff our schools. Prior to 1989 we had complete trust in the Colleges of Education that they would deliver a quality product. The market approach to teacher training has created a climate of unease; we are in receipt of considerable anecdotal comment on teacher competence. We have watched, with some concern, the debate over the introduction of the compressed teaching training programmes. We are made to feel even more uncomfortable when bodies such as the Teacher Registration Board start expressing their concern (Renwick & Gray, 1997).

We need to have an assurance that students at all levels will enjoy the best possible teaching and learning. Therefore as trustees we totally endorse the conclusions of a recent report of Renwick and Gray (1997) on teacher training which notes that:

It is important that the effectiveness of individual compressed programmes of teacher education are monitored and evaluated.

Research priority:

- That the appropriate longitudinal studies are put in place to ensure that teacher training is meeting the needs and expectations of the education market.
- That the same type of studies are implemented to ensure that professional development programmes are meeting the support needs of teachers.

⁸ Roger Leslie, *Personal communication*. Roger is an Otago-based school trustee.

⁹ Joan Titman, *Personal communication*. Joan is an Auckland-based school trustee.

National Overview of Education

Trustees have a very high expectation that our national system of education will deliver high-quality educational outcomes—outcomes which are relatively consistent across the entire country. For example Lynn Baillie¹⁰ wants to know that if she shifts her children from Dargaville to Tauranga they are going to get the same quality education. Are ERO reports consistent across the country?

Henderson notes that a comparison of the public's education expectations versus government educational expectations would be most interesting. Do they match? Does central government have its own agenda?

Leslie ponders whether educational research is getting us "further ahead" or "further behind". He asks:

Do we have accurate results from the past? Say 30 years ago. I know this is dismissed as anecdotal stuff but my father has better writing, grammatical, and reading skills than I have, and both of us are better than my son, although I believe he is better than us intellectually. . . . all the research done so far doesn't seem to have delivered better educational outcomes so what good will more research be unless we listen to the results. Have you noticed that none of the changes in education have ever been wrong (or admitted so)? Nobody has ever said, 'Well that didn't work, so let's go back to where we were'. No, no, let's tweak it a bit and try to find scapegoats for our mistakes, let's do research and ignore the obvious things. . . .

Research priority:

- Trustees need to be assured that our national-based education system is delivering quality outcomes for all students.
- A holistic approach needs to be taken in researching the country's national educational priorities. Research must clearly reflect the agreed national need and target and identify the areas of need.

The Funding Debate

The funding debate within the compulsory education sector occupies far too much time. It has become almost a total distraction. A simple, agreed mechanism must be put in place to ensure that the funding base of all schools is monitored and upgraded on a regular basis—end of story.

Research priority:

That the appropriate zero-based funding models be developed for various school types

¹⁰ Lynn Baillie, *Personal communication*. Lynn is a Northland-based school trustee.

Concluding Remarks

Trustees' priorities for educational research are relatively simple; they have the expectation that research is being implemented which reassures them that:

Their students are receiving the best possible education.

Trustees have the expectation that research will provide timely answers for the following:

- that the trustee system of governance and management is delivering effective educational outcomes;
- that any barriers to learners are being clearly identified and that practical solutions are being suggested;
- that the teachers who are staffing our school are receiving adequate training and the appropriate on-going professional development;
- that the direction of our national curricula is meeting the future needs of our children;
- that boards are being adequately funded.

Mulligan notes:

Trustees do not denigrate research or researchers. Trustees (and boards collectively) are the customers and they are looking for product testing and analysis to help them in making well-informed decisions about what products to buy. Or if they have the product in their school (i.e., curriculum) and they need to know if the product is doing the job it was intended to do?

He also points out:

Researchers need to be encouraged to present their findings in a user friendly style. Much of what is written is pure jargon fine for fellow researchers but researchers need to be aware many of their potential customers are ordinary citizens who require plain understandable English. Being a parent and a trustee does not automatically give you any particular skill such as the ability to understand research findings let alone their implications. Researchers need to follow the KISS¹¹ principle!

As trustees we are responsible for the governance of our school. We value this role. We look to the professionals (our partners in education) to:

- listen to and acknowledge our expectations;
- provide us with good timely guidance and counsel in all of our responsibilities especially the prime one of our NAG 1 responsibilities.

¹¹ KISS – "Keep it simple – stupid".

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USERS' EXPECTATIONS: A POSTGRADUATE STUDENTS' ASSOCIATION PERSPECTIVE

Farida Tilbury

Kia ora tātou

I'd like to start my speech with a little disclaimer. I am a little unsure why the Victoria University PostGraduate Students' (PGSA) Association was asked to speak in this prestigious forum, though we are most appreciative of the chance to offer our views on priorities for educational research in New Zealand. The Victoria PGSA is a student association which was set up formally a year ago to address issues of concern to postgraduates including issues of under resourcing, disparities, lack of community, support and isolation, working conditions, and so on. We organise seminars, an annual conference, produce newsletters, and lobby the University on behalf of postgraduates. We are a student union, not a national alumni association, which might be the impression that some have on seeing us grouped with other more obvious users of educational research such as the Post Primary Teachers' Association. However, we do have some ideas about the type of educational research which would be of value to us. However, as an underfunded student union, we can't afford to contract out any of these ideas for research projects, but would be most pleased if NZCER thought some of them worthwhile to take up themselves! We recognise the importance of participation of all possible stakeholders, in the process of developing guidelines for the provision of useful information and appreciate that the grass roots are being asked what is needed.

Education has become one of the fastest growing and biggest industries in the world. Intellectual property is where the growth is. A decade ago Australia developed a slogan for their national ideal, calling themselves "the clever society". New Zealand has recently emulated that. According to Jim Bolger, it is "the learning society". The prosperity of New Zealand will depend on creativity and innovation. We are in the midst of the information revolution, or so all the commentators keep telling us. But how do we know what is important information and how to transmit it effectively? This is where educational research can help us.

Before beginning I'd also just like to comment on the wider question of what drives research. Who uses educational research and what sorts of things do they want? If we buy into the economic rationalist market model of education (which I am loathe to do) we firstly need to ask who is the client of educational research. If it is employers then we need research on marketing issues (which degrees produce the best students for specific jobs, which degrees produce specific skills bases, how do students decide whom to seek employment with, and so on). If the client is the student then we have a different set of questions for educational research to answer (what degrees are most marketable, cheapest, produce better job prospects etc., of what use is the knowledge offered in different degrees, both in practical and general terms, what teaching forms produce the best

learning). If the client is the government then the questions, with some overlaps, again have a different focus (what factors influence graduates to stay in New Zealand, how is student debt affecting tertiary education, are affirmative action policies useful for producing a more equitable system, and so on). Perhaps the university itself is the client of the research, in which case it would be interested in how students choose which university to attend, what courses to take, best teaching practices etc. Stepping outside the neo-liberal model for a second, the general public is also a client. Educational research can serve the interests of the wider community by identifying how best to contribute to the values of the community, which may be to produce an equitable society, a just society, a tolerant society, fulfilled human beings, and so on.

I personally am of the old school which, without being self-indulgent, believes in knowledge for the sake of knowledge. Any research on education is useful, because education itself is vital for the development of any society. Research which aims to enhance accessibility of quality education for all is probably what ought to have priority.

Research on Postgraduates in New Zealand

I have not done a literature search of educational research on postgraduates in New Zealand. From the NZCER Web page it appears their focus is on pre-primary, primary, and secondary education (forgive me if I'm wrong). We know there is a lack of research on graduates and postgraduates in New Zealand because different organisations, including the administration and marketing branches of Victoria University, have come to us, a student union, for information on various aspects of the postgraduate experience.

There are a few recent studies relating to postgraduate education in New Zealand. Recently a survey was undertaken of women postgraduates at Canterbury which covered issues of training, resources, safety, attitudes towards women postgraduates, family responsibility, employment, scholarships, and so on. The NZUSA has also undertaken a national survey of postgraduate resourcing and supervision, the results of which have not yet been made available. We are currently negotiating a survey of postgraduates which will cover some of the following issues—demographics, employment issues, financial issues, research, and resourcing issues. These studies are about what the current situation for postgraduate study is; they don't attempt to provide any idea of what are the best practices in postgraduate education.

Victoria University is also undertaking a longitudinal study of undergraduates, tracing a group of first-years through their academic careers, looking at attrition rates and reasons for dropping out, as well as their general experiences. We need similar research on postgraduates, including exit interviews or something similar. There is a rumour that 70 percent of postgraduates drop out before completing, but we currently have no way of knowing if this is accurate.

The universities also all have teaching development centres which produce information on teaching standards. There are a number of problems with such educational research, including general problems with quantitative methods, the fact that these measures don't get outside a traditional teaching paradigm since the questions focus on traditional forms of learning such as lectures, tutorials, assignments, and exams and don't investigate new ways to improve knowledge flows. There is also a problem with these studies as they don't really cover postgraduate work where small class sizes and individual teaching make effectiveness difficult to assess due to the lack of anonymity. The university has started instituting measures of supervision, but there are problems

again with the fact that this is a one-on-one teaching situation and to give negative feedback might jeopardise the relationship between the postgraduate and supervisor or one's marks.

In general terms I think research addressing the exact nature of and the best ways of achieving, as well as the effects of, the trend towards lifelong learning, seamless education, market-driven models, module systems of knowledge output and flexibility, ought to be the priorities.

We also need more knowledge of the needs of postgraduates in their research, and their personal needs. We need to know what the existing conditions are, what the ideal conditions are, and how to address the gap between these with policy. The main issue is what forms should a quality postgraduate education take and how can these be achieved.

I've chosen to focus on a few areas which the PGSA sees as needing the most research.

1. Supervision

One of the most common complaints from postgraduates is inadequate supervision. The PGSA is currently writing a Working Paper on this problem. There is no research on how the supervisory experience could be improved, or on best practice guidelines. It sometimes seems to postgraduates that the traditional university model of self-directed research is used as an excuse for lack of engagement and shirking of supervisory responsibilities.

We need research on what other models are available for the "teaching" of research at this level, models that are not so prone to the influence of personalities and individual commitment. One example might be the whanau of supervisors model, but there hasn't been enough research on this. Another, slightly tongue in cheek, possibility would be to develop a model to match supervisors with students, a sort of Blind Date of academia, or a computer programme to match supervisors with students, including not just research interests but personality factors, approaches to learning, other interests, and so on. We are also aware of a problem of overloading the few good supervisors—work needs to be done on alternate ways of managing this so students have access to excellent supervision. Needless to say, more research on what makes a good supervisor would be well received—what exactly is good supervision. Another point of interest is the method by which supervisors are chosen. There is a lack of transparency in this process and we are aware the best students get the best supervisors, and the mediocre are left to manage with the mediocre.

There is a problem with developing such ideas in the current environment of not only competition between countries for postgraduates, but also increasingly between universities, and in the future we can anticipate competition between departments.

We are also concerned with the "disincentive" to supervise. As student/lecturer ratios rise there is a great incentive for staff to limit their workload, and one way they can do this without much fuss is by limiting their supervision of postgraduates. If we attempt to prevent this by bringing in formulas to "equalise" workloads then students will be increasingly manoeuvred into a take it or leave it situation—that is, staff with the lowest workload will have to take up more supervision, whether they are suitable or not.

The PGSA is also interested in the forms of examination of postgraduate research. The Arts Faculty (now the Faculty of Humanities and Social Sciences) at Victoria has just changed from having compulsory PhD oral exams, while Science retains these. There are also questions about the appropriateness of the internal assessment which could be built into the research process.

2. Resourcing

Research needs to be undertaken to establish what the ideal and actual resourcing provisions for postgraduates are. There are enormous differences between different universities within New Zealand, and internationally, and between departments. It is important to know how differences in resources affect research. How can New Zealand compete internationally if its postgraduate programmes are under resourced? What effect will the government policies such as fees and the suggested 5-year voucher system have on postgraduates? What of student debt levels and the effect of these on decisions to pursue or not to pursue postgraduate qualifications? Is there improving efficiency? Are students getting a better deal now that universities are supposedly more accountable as students are required to pay higher and higher proportions of the cost of their education? Are there sufficient scholarships available? Can students afford postgraduate education? How do resourcing issues affect equity and access for minorities? The PGSA are concerned that as costs increase and resources decrease, the quality of postgraduate education will drop.

3. Communication

This is a major issue for postgraduates. High levels of isolation and the lack of community is the second biggest problem expressed by postgraduates. Research is needed on what the best forms of communication are between postgraduates themselves and between postgraduates and their supervisors. There are endless possibilities using the Internet and the Web. The PGSA has established an e-mail list and chat group, Web page, to provide information to postgraduates. Some departments have their own internal lists. There is a need to evaluate how this is working, which groups have been quick on the uptake of these new technologies, and whether some groups are left out of this form of communication.

Distance education is another growth area with repercussions for postgraduates. Increasing numbers of people who are living in different cities are enrolled at universities for postgraduate work. We need to know how this works, what effect does it have on their education, what forms of communication do they develop, how does the supervisor relationship work at a distance, and so on? Research needs to be done on how students are using the new information technologies. How useful is the Internet/Web to postgraduates? How are postgraduates affected by and benefiting from the Web. At a recent talk here Dale Spender suggested that a literature review for a PhD used to take 2 years, the equivalent now takes 10 minutes on the Web. How is this changing the face of postgraduate research? Who is using the Net—by department, thesis topic, gender, ethnicity, life experience, etc.? What are they using it for? Should the aim be to increase usage? What training is available? How can attitudes be improved/changed?

4. Market-type Research

Again, I am wary of using neo-liberal market models to apply to education, which I think is essentially a public good. But I am also a realist and graduates need to find jobs when they finally finish their degrees. We are constantly told of the need to be sensitive to market trends but it is difficult to know what the market wants. This is particularly difficult to assess, or project, when we're talking of degrees which take 2 to 5 years to complete, and which are necessarily highly specialised. We need research which will indicate which are important areas for postgraduate research, which will be relevant several years down the track.

Another important area for research would be in relation to Treaty issues. We currently don't know the levels of Māori participation at postgraduate level. Studies would be welcomed on the recruitment and retention of Māori and other minorities. We also need to know how the postgraduate environment can be improved to encourage minorities to pursue postgraduate degrees.

Another issue is "credential inflation". It appears that we now need to do postgraduate studies to get any job. Postgraduate education has become less elite but are standards dropping? Can a dollar value be put on postgraduate qualifications, and if so, are they worth doing? We need some clearer cost/benefit analysis here. All universities are trying to increase their proportions of postgraduates to between 20 and 25 percent of the student population. Is it necessary to increase numbers? What will the effect be? Would it be better for specialisation to occur so that some tertiary institutions become solely postgraduate?

Most importantly what is appropriate research for postgraduates to undertake? What will be useful? Recently my department held a seminar on what sociologists do when they "grow up". These professionals argued that the university produced graduates who are too waffly, too theoretical, unable to meet deadlines, not neat, and without a number of other valuable skills for the "marketplace". They argued graduates need quantitative skills, the ability to do contract research and evaluations, the ability to engage with economics, and that they needed to be familiar with the culture of organisations. They noted that the MA Applied is a more marketable degree providing a skill mix to match the market. It was also pointed out that the traditional apprentice system which had seen graduates learn practical skills out in the "marketplace" had broken down with the advent of contract research, so graduates need to learn these skills at university. It became clear that there would be educational value in the university developing a commercial research arm to tender for research and evaluation contracts. Under such a system postgraduates could develop experience while still at university, another form of hands-on learning.

Universities need ways to access this information, and develop ways to quickly adapt what they teach and how they teach it in order to respond to market demands. Old fashioned "jobs" are on the way out—now it's portfolio work, for example, part-time, consultancy, and contract. Should tertiary education be more individually, skills based than currently? The jobs we are training to do haven't been invented yet (information revolution). The tertiary sector is slowly adapting, developing a closer education/business interface—with new postgraduate-level degrees which are applied, such as the MMSTech at Victoria, BscTech (IRL link), Masters and Dip Soc Wk, Masters of Environmental Studies, and so on. On the other hand, how can universities continue to provide the broad-based, as opposed to practical, education they have traditionally provided? What arguments, proofs from educational research, do we have to support the contention that there is value in this sort of education? If we are forced to focus on purely practical skills, what happens to the "rounded" education based on developing critical thinking and the ability to analyse, etc.? What happens to fundamental rather than applied science? Where do philosophy postgraduates fit in this "brave new world"? This leads on to the question of what is a university, which is too big to be handled here.

5. Personal Issues

While it may seem of less importance compared with such universal questions just posed, the PGSA feels it is important to understand how postgraduates are affected by personal issues throughout the

research process. An understanding of the emotional, physical, and life-event effects on learning are crucial to improving the postgraduate educational experience. We need studies of postgraduates' mental states, depression, suicide rates, marriage breakups, and so on. We need to know what the barriers to completion are. I think it would be possible for some intrepid psychologist to develop a typology of stages of the research process/postgraduate experience, like the ones of mourning—something along these lines—enthusiasm, denial, inadequacy, distraction, diversionary tactics, overcommitment, denial, isolation and loneliness, inadequacy, hard slog, euphoria.

Conclusion

A brief conclusion then to tie up the diverse points I have mentioned. The PGSA sees a great need for more educational research to improve the quality and accessibility of postgraduate education in New Zealand. We need information on the whole postgraduate experience, including resourcing, supervision, communication, market issues, and personal issues. What will happen to New Zealand universities in the global education marketplace, how can they adapt, what new forms will they need to take? How will the Tertiary Education Review and the development of contestable research funding affect postgraduates? There are unlimited areas needing analysis. If you need any more ideas for educational research, just come and talk to us.

OPEN FORUM

Issues Raised in Discussion After the Panel Presentations on Users' Expectations Regarding Priorities for Educational Research in New Zealand

In response to the chair's question of the panel as to whether they were disappointed with what the research community was producing,

Joanna Beresford said she was not—that the research community was continuing to produce outstanding results within an environment of ever decreasing funding, and a lack of political enthusiasm and support.

Mark Farnsworth said, yes, in hindsight, but he supported the work currently being done. He thought trustees should have demanded that more research be done on the impact of the reforms from the start.

Bronwyn Cross was confident about the research being done, so long as it was useful.

Farida Tilbury thought that more research needed to be done on the quality of Postgraduate teaching.

**POLICY MAKERS' EXPECTATIONS: PRIORITIES
FOR EDUCATIONAL RESEARCH**

POLICY MAKERS' EXPECTATIONS: MINISTRY OF EDUCATION

Howard Fancy

Thank you for the opportunity to be here today. I would like to acknowledge NZCER for organising this conference. I'd also like to welcome Barry McGaw and thank him for sharing his knowledge and expertise. It's good to see people from all parts of the education system here today to discuss this important topic. I'm sure that this will lead to wide-ranging and relevant debate.

The theme for this panel discussion is *Policy Makers' Expectations Re Priorities for Educational Research*. This is an important and timely topic for the Ministry of Education.

We are currently addressing the issue of how we set our research priorities and how these are best informed by future policy and strategic issues which focus on education in the medium and long term.

I would like to centre my comments today around several interrelated themes. The first is the Ministry's role in the education sector, and the nature and focus of its activities.

My second theme concerns the implications that our role and policy focus have for our research needs, in terms of both our areas of interest and the characteristics of the research we find most useful.

Finally, although Lynne Whitney has already spoken to you about the relationship between policymakers and the research community, I would also like to make a few observations on this issue.

The Ministry of Education's Role

The Ministry of Education's primary role is to provide advice to the Government on matters relating to education. While we are a primary source of this advice, a number of other agencies also play an important role in providing advice from their perspective. We are concerned with the overall performance of the education system in terms of student outcomes. We are interested in the performance of different providers and the factors that shape their ability to deliver high-quality education. We are concerned about the barriers that limit people's ability to access and successfully participate in education, and to achieve their full potential.

Our capacity as a Ministry to influence these aspects of the education system, while significant, is indirect.

Our focus is on how the overall student outcomes and the performance of providers can be best influenced by the design and implementation of policy.

The education policy framework of regulation, funding, service delivery, ownership and industrial relations, evaluation, and communication provides the parameters and prompts for action

by education practitioners. The settings for such policies will influence the responsiveness, capability, and performance of the education system and overall education outcomes.

In approaching policy issues we are required to cast our policy net wider than just the education system, and the providers and students within it.

We must look ahead to the externally generated demands likely to be made on education providers in the future, and the influences that shape those demands. These influences include changes in technology, the nature and values of society, the size and diversity of the population, and economic and labour market trends.

We need to bring education perspectives to bear on a range of economic and sound policies. For example, how welfare and health policies might be better designed or implemented in order to reduce barriers to learning.

The Government's influence in regulating the sector is exerted through a limited number of mechanisms. It sets the legislative and regulatory requirements, establishes funding levels, and the methods for delivering resources. It has ownership requirements, and broadly defines the curriculum. It determines the industrial relations framework and has some influence on individual behaviour through the dissemination of ideas, best practice etc., and so on.

Thus, the Ministry's key sphere of interest and influence more is concentrated at the global, systemic level of the education system, with a strong focus on how policy settings influence education outcomes.

On the other hand I would expect those who work in education institutions delivering or managing education to have a different emphasis—that of individual student, pedagogical, and institutional issues.

In other words I would expect the research driven by education professionals to be concerned primarily with the *process* of education—that is, the teaching and learning that takes place in the playground, in the classroom, on the marae, or in the lecture theatre.

Policy makers, on the other hand, are interested primarily in ensuring that the *policy frameworks* within which providers operate support effective teaching and learning.

Implications for Our Research Priorities

I now want to turn to what the Ministry's role and what the emphases in our work mean for our expectations and priorities for research.

As I hope my comments thus far have illustrated to you, while the Ministry is concerned with student outcomes, the nature and focus of policy work is both wide ranging and largely focused at the systemic level, rather than the individual student, classroom, or institutional level.

I do not see the Ministry of Education subscribing to one particular theory or set of values. The challenge for us is to not only undertake research but also be able to access insights from a wide range of research.

I do not see us having to embrace particular philosophies or schools of thought. I see us as needing to be a "rigorous eclectic". This means drawing on information, models, and approaches from a wide range of disciplines and theoretical frameworks, education, social sciences, labour market theory, organisational design, and economics.

It also means drawing not only on empirical research, but also on expert and institutional knowledge and examples of practical solutions. We want to learn from the leading-edge thinking and the insights that it reveals.

The point about the need to access research as opposed to funding or undertaking research is an important one. We need to do all three.

While the focus of the research the Ministry undertakes or funds will be primarily policy oriented, I consider that it is important that we access and understand the much wider research effort relating to education, education process, and education outcomes.

Accessing such research helps us understand the conditions which facilitate better student achievement, and which encourage reflection, adaptiveness, and innovation amongst professionals. In this way we can ensure that the policy framework for education supports these important dimensions of education.

In drawing on theoretical research we need to understand the assumptions and pre-conditions which underpin the information, data, models, or findings. This is essential to determining their relevance and applicability to the particular policy with which we are concerned.

We are also vitally interested in not only what might work but why it will work—or why it might not. This gets you into issues of human and institutional dynamics.

I'd like to turn now to what I see as the important areas for research in education over the next 10 to 15 years. These are broad areas and I see them underpinning the key policy developments over this period.

1. The Overall Performance of the Education System

The first is the overall performance of the education system.

I see a need for a greater emphasis on assessing the performance of the education system and in particular its outcomes for students.

In assessing the overall performance of the education system, we are not just interested in averages. We also want to know about the spread and relative performance of different cohorts of students. This gives us a greater capacity to ascertain the impact of policies on student learning, and provide signals for areas in which more detailed research or policy changes may be required.

At the present time there are significant gaps in the information available about:

- (a) how different institutional arrangement or policy settings impact on students' achievement (the "value-added");
- (b) the overall effectiveness of Government's investment in education, for example, impacts on participation, overall achievement, outcomes of students' participation, and Government's investment in education; and
- (c) to inform implementation and delivering what works in terms of improving the educational outcomes for different students.

At present we tend to resort to proxy measures, such as senior secondary school examination results, participation rates, tertiary education graduation rates, and so on.

I would like us to work towards building a more comprehensive and systematic set of meaningful indicators which provide policy makers, administrators, and educators with information about the

educational performance of students at a systemic level. The Third International Maths and Science Study, Transition Point Assessment, and the National Education Monitoring Project are examples of research projects which aim to provide us with more and better information about student achievement. Also important in this area is research centred around the determinants of school effectiveness.

2. The System

There are a number of economic and social changes affecting New Zealanders and shaping the demands they make on the education system. This is leading to our system becoming more heterogeneous. It puts greater pressures on adaptability and responsiveness, both at an individual institutional level and at a systemic level. This has implications for approaches to a number of policy areas in terms of how policy should become more enabling while also looking to lift quality.

3. Students at Risk

The third research priority for the Ministry of Education is students at risk of educational failure.

This will continue to be a significant area of attention for educational policy in the foreseeable future. The Ministry of Education is not just concerned with lifting New Zealand's overall educational performance, but also in closing the gap between the top achievers and those who do not achieve educational success.

We are interested in understanding the barriers to learning for these students. These barriers may be social, economic, institutional, or individual. Addressing them or mediating their effects may require interventions across a range of levels, both within the education system and outside it.

Also important, is not only issues of where to intervene but the most effective ways to intervene. As you are no doubt aware, education and social policy agencies are increasingly working together to develop solutions to educational under-achievement. We recognise that the factors contributing to the risk of educational failure are frequently located outside the school, and that educational failure contributes to poor health, poverty, and other social problems.

Just as social policy agencies are working together, I also see a need for researchers to work together in a multidisciplinary way to study the complex interplay between social, economic, and educational forces.

4. Māori Education

Finally I see a need for us to continue to turn our attention to Māori education issues.

Māori as tangata whenua have a special status within New Zealand. They have not been well served by educational and social policies in the past. We know that they are overrepresented in many negative indicators of social, economic, and health status and in terms of educational achievement. The maintenance of te reo and tikanga Māori remains an important challenge for the education system.

It is important that the policy frameworks we develop incorporate Māori perspectives and provide opportunities and support for Māori initiatives.

While the amount of research undertaken by, for, and about Māori has increased in recent years, there is a need to continue to ask and respond to the critical questions for Māori education. What

are the fundamental causes of policy failure? What factors contribute to educational success for Māori students? What is the impact of different learning programmes and institutional environments on Māori educational achievement?

Research on these and other questions will provide an important basis for the development of education policy in future.

The Relationship Between Policy Makers and Researchers

In closing I would like to follow on from Lynne Whitney's address this morning, by saying a few words about the relationship between policy makers and researchers.

I recognise that the relationship between researchers and policy makers can be a difficult one at times. Our roles and functions are different, as are our cultures and values, the frameworks and contexts that we work within, and the perspectives that we bring to our work.

I consider this to be a very important relationship, one where there are shared responsibilities to make it work.

I look for the relationship between researchers and policy makers to be a potentially positive one.

The research and academic communities have a critical role in helping policy makers to develop informed policy, by not only understanding research but helping policy makers access and interpret research findings and identifying new frameworks of analysis and thinking that would provide policy insights.

In turn, policy makers can help researchers to understand the practical nature of the policy problems that we face, and the constraints within which we must develop our policy responses.

The Ministry values and welcomes the research community's input into the policy debate. In providing this input, however, researchers need to be aware that they are providing only one perspective, and often one which is grounded in a particular theoretical paradigm.

It is the Ministry's role as a policy maker to distil policy solutions from a range of perspectives, including those contributed by researchers.

In conclusion, from a Ministry perspective—

- ☐ Our primary interest is in overall education outcomes and how these are shaped by the overall range of policies.
- ☐ Our focus is much wider than the teaching-learning process and takes account a wider range of institutional, social, and economic factors affecting student achievement.
- ☐ Key priorities centre around overall performances, lifting the achievement of Māori, effective intervention to reduce risk of educational failure, adaptability versus responsiveness of the sector to a rapidly changing economic and social environment.
- ☐ While the perspective of a policy maker and researcher will differ, the ability to effectively communicate and relate must assist meeting the shared goal of the best possible educational outcomes.

POLICY MAKERS' EXPECTATIONS: EDUCATION REVIEW OFFICE

Judith Aitken

ERO's Interests

ERO not a policy maker or primarily a policy adviser—the Office is an independent external evaluator of education services as these are delivered through a predominantly State-owned and -operated system.

Our professional services are bought by the Crown, which is also the dominant supplier of educational research in New Zealand, not only via the Ministry of Education but also through the revenue it supplies to the academic and other research bodies.

I want to refer to three issues. I will discuss only one, and leave the second and third lying on the table:

1. Does it appear that access to and use of research is a discernible influence on the behaviour of principals and teachers in New Zealand schools?
 - What use is research to the education profession working in schools?
 - Do researchers actually expect anyone to use research? If they don't, what do researchers do about that?
 - Could research into the causes/reasons/incentives itself assist in this critical field of public sector management and professional development?
2. What does ERO need to know?
3. Should ERO's evaluations inform policy decisions?

Access to and Use of Research by Professional School Staff

Review Officers evaluate

- how education is provided; and
- form evidentially based opinions on the extent to which students benefit from, and the Crown can be assured about, the schooling and preschool services.

For various reasons, therefore (not the least of which is that this is the education sector, and presumably primarily concerned with knowledge, learning and so forth), ERO expects to identify and be able to comment in some way on how research (educational and other) informs and adds value to the policies, regulatory interventions, service delivery processes, stakeholders' experiences, and the outcomes of school-based education.

There are some general observations we can make after 6 or 7 years in the field about who uses research. For instance:

Trustees Don't

The trustees elected to govern schools appear very rarely if at all informed about, and confident in, the utility of externally generated research.

While trustees individually and in groups may declare a keen interest in the "how do we know if" sort of question, especially in relation to children's learning, they usually defer entirely to the guidance and stimulation provided by their own school staff about the quality, availability, and relevance of research.

Principals: Some Do, Some Don't

Principals, who are responsible for managing schools and providing the professional leadership, tend to fall into a few broad groups:

(a) Those Who Don't

- Those who appear to read very little other than purely internally generated material and basic information from official sources such as the Ministry (for example, the *Gazette*). If they are reading research findings, this appears to have little or any discernible impact on the way they present their expectations, their management systems, their professional performance, their dealings with staff and children, etc.

(b) Those Who Might Have, Once Upon a Time

- Those who may have read more or less widely in specifically educational research when they attended training college (which may have been 20 or more years ago) but now claim to read very little, and only rarely claim to subscribe to research periodicals or journals.

The reasons given, if prompted, usually fall into the "you must be joking, I'm far too busy to follow research" or "I'm pretty experienced already, and I doubt if research could . . . me at this stage—given my problems—given the type of child we have at this school" categories.

It is extremely unusual—indeed, I have come across only 2 examples in 5 years—to find a principal that has negotiated regular access to research material or management, organisational, and other journals as part of her or his employment arrangements.

(c) Those Who Probably Do

- Those who within the past 5–8 years have started or completed a postgraduate course of study, typically in education administration, often at Massey or Waikato, or a diploma in some area of education administration or leadership, and have used education research as part of their studies (and it is worth mentioning that the dominant research interests and preferences of the academic staff are usually easily identified in the opinions of their adult students).

These are typically primary school principals and are more likely to work in a school large enough for them to have substantial or complete release from classroom teaching.

- Those who in the past 5–8 years have taken postgraduate university courses outside the immediate education range, especially in management, public policy, organisational development, and other areas of social science, and have used research from disciplines other than the faculties/schools of education.

These are typically secondary school principals in their 40s.

Teachers: Some Do, Some Don't

Classroom teachers (including teaching principals) seem to fall into similar groups.

(However, there is a small subset of recent graduates from teacher training colleges, where it would be expected that access to, and familiarity with, recent research of a fairly eclectic nature would be most apparent in their professional conduct. They tend to comment with nostalgic regret or grumpy irritation over what they perceive as the lack of utility of such research while they are struggling to come to grips with the day-to-day challenges of their chosen profession. Some will report that the relevance of teaching and learning theories, for instance, will probably become clearer eventually, but in the meantime they draw heavily on their day-to-day experiences in the classroom and the advice of their colleagues.)

So, Where Is Your Research To Be Found and What Use Is It?

Finding and Using the Literature

Whenever I am in a school, or meeting principals, deputy principals, and associate principals, I always make a determined (but polite) effort to ask about the periodicals and journals to which they and their staff have access—and actually read.

This is usually a very short conversation.

Even if a periodicals/journals list is available, the nearest it comes to including research is union broadsheets, the well-regarded *set* published by NZCER, and magazines that are clearly part of the specialist interests of one or a handful of teachers.

So the general conclusion is that whatever feeds the minds of our school managers, principals, and teachers, it is rarely formal research.

Attending Conferences and Knowing About the Gurus

Perhaps the single most obvious sustained exception to this is the longstanding and commendable practice of unions and associations such as the NZPF, SPANZ, NZEI, PPTA etc., to include researchers and educational experts in their annual or regional conferences.

This year, for instance, the NZEI invited Dr Helen May (Victoria University), Dr Peter Harris (PSA economist), and Rob Durbridge of the Australian Education Union to address their members at their annual conference.

The PPTA invited Ruth Sutton (a frequent visitor and speaker from the UK), Dr Mimi Recker, Professor Ivan Snook, Dr Terry Crooks, and Kathy Smith, a PhD student from Victoria University) to their annual conference.

Principals and teachers, both those who attend and those who take little active part in such professional associations, may mine their old intellectual/educational capital of undergraduate

research and can sometimes recite the names) of popular local researchers—Roy Nash, Ivan Snook, John Codd, Terry Crooks, Warwick Elley, Gerald Grace, Adrienne Alton Lee, and Geraldine McDonald whose work gives comfort and respectability to many in the profession, even if they haven't personally done any of the hard reading required to come to grips with the thinking and analyses of such researchers.

They are likely to have heard of Peter Mortimer, some will have access to the *Times Educational Supplement*, and most present as profoundly sensitive to the view that there are politically and professionally correct camps of research and researchers, banners under which it is safe to stand, ditches it is socially and professional fatal to fall into. . . .

They may be familiar with, and often coin, terms such as formative and summative evaluation and assessment, child-centred learning environments, holistic learning, whole language teaching, and so forth.

But attempts to discuss in depth, debate, collectively analyse, write about in published journals such research are rare; even more rare are public debates which risk debunking what often looks like cant or poorly researched rhetoric.

The "I Forgot To Read *Mein Kampf* and Treasury's 1984 *Economic Management*" Syndrome

Perhaps most disappointing of all for Review Officers is to attempt to identify, understand, and evaluate the theoretical bases for professional educators' behaviour and action, the openness of these to challenging and perhaps unfamiliar logics from other disciplines, the knowledge and use made by principals and teachers of an eclectic range of theoretical frameworks to explain and analyse such matters as

- different organisational structures,
- the impact of different modes of human service delivery,
- the impact of entry or exit control,
- the management of consumers' prior experiences and expectations,
- the different learning capabilities and patterns observed in very young and older children,
- the basis for and implications of having a formal national curriculum,
- different approaches to the assessment and evaluation of different teaching modes,
- different rates, types, and outcomes of students' learning,
- hard questions like the definition of inputs, outputs, and outcomes in relation to a human service like education,
- the implications of providing a mass population service like education compared with other services which are not mandatory but open to the discrimination of the potential consumer,
- the possible meanings of seemingly innocent phrases like "barriers to learning", "a balanced curriculum", "authentic assessment", "lifelong learning", and so forth.

These issues are far from purely academic or merely theoretical. They are the daily stuff of schooling.

So without a sustained and informed interest in such, it can be little wonder that much of their professional work, their diverse roles and functions, their complex accountabilities, appears incomprehensible, incoherent, unsympathetic, inappropriate, unfamiliar, and unhelpful to those managing Crown entities, and working as professional teachers in them.

Conclusion

In my view it is so much easier to cope with, work productively in, and manage a public sector organisation if one has tried to gain some knowledge of public choice theory, contestability and agency theories, transaction cost theory, and the fascinating (albeit controversial) raft of research that derives from these analytical frameworks.

The structure of the modern public sector, the structure and workings of the post-1989 education sector, the pressures upon it, the barriers faced by students and teachers, the incentives and sanctions that are applied, still seem foreign to many employed in the education services.

I am not talking about those who understand very well what it is all about—and on that informed basis choose to disagree or passionately resist.

I am talking about those who remain locked in the past, and have few research-based tools and few eclectic theoretical perspectives to help in dealing with the present and preparing for the unknown future.

So one issue for ERO is how can high-quality research, informed by an eclectic range of theoretical disciplines from the social sciences and other fields as well, be harnessed to generate sustained intellectual curiosity, scholarship, and sceptical mental energy in the one profession that should provide the intellectual leadership in our community?

Because if principals and teachers are not exemplars of intellectual energy, as well as a humane and responsive range of affective and other qualities, then to which professions should we look for these?

This is an issue for all professions, including ERO's own (evaluation), but surely a critical matter for those employed to teach and facilitate the learning of young people.

But it must be a very important issue for researchers themselves, and I wonder what they can do to improve the situation.

POLICY MAKERS' EXPECTATIONS: TE PUNI KŌKIRI

Paora Howe

Research issues for Māori:

- the link between political expediency, political processes, and robust argument/data/research;
- Māori as research victims—deficit research theory and the outcomes of those models—to Māori as research proponents—empowering or emancipatory research;
- “taking it on the chin”—when you don’t like the message; and you don’t like the message being repeated;
- the amount of research being undertaken on behalf of Māori—how do Māori get a say?
- quality; quality; quality;
- the “by Māori for Māori” debate—what is kaupapa Māori research? Who defines it? What is its future?;
- workforce development for Māori in education (cf., health);
- MoRST’s priority and FoRST’s selection policies—are iwi/hapu/Māori stakeholders, and if so, who writes their strategy? (cf., government, CRIs)—what do Māori have to do to access funding and what do MoRST have to do to increase Māori involvement? Is there potential for all educational technology-related funds to be made accessible to researchers (either through the PGSF or the Technology funds).
- ownership of the information—contract agreements, intellectual property rights;
- data interpretation and selectivity;
- making the best use of the information gained—who is it actually supposed to serve?;
- who pays and why?;
- end goal sharing—strategic developments in research, territorialism in research.

General Comments:

- there is an argument that current research has focused on immersion education, although the majority of Māori are in mainstream education. We argue that neither is particularly true;
- Chapple/Jeffries report—who really is responsible for improving Māori educational outcomes?
- the MoE’s research programme—a framework—What? Why? When? Who?
- MoE research funding for Māori education issues?
- the “we know what is wrong, enough research has been done on Māori education” debate;
- ETE’s (TPK) research programme—should we have one? What is TPK’s real role in this area?

- disparities and assessment levers to measure progress for Māori—secondary schools blame primary schools for poor outcomes; we need assessment at an earlier level to discover when Māori students start to fall behind (NCA needs to go ahead); but we don't want assessment to drive programmes;
- political imperatives—what each party wants to know and why?
- clarity the key goal.

Specific Research Issues in Education

All of these need expanding. I will talk to a few in the time I have. I raise them as both specific areas of research interest and areas for debate. They are not meant to be comprehensive, but should give a feel for contemporary issues in research which Māori need to have answers for.

- early childhood—major longitudinal study including comparison between mainstream and immersion schooling, Māori and non-Māori, academic and other outcomes (e.g., whanau and community spin offs), could get buy-in from other Government agencies (Labour interest in employment outcomes, Justice in crime statistics etc.);
- basic research into what outcomes Māori want from the education system (purely employment related?);
- career development: students may be making career decisions in intermediate school and then taking certain courses at the secondary level that restrict their future employment opportunities. Who is feeding Māori good information so good choices are made?;
- reasons why so many Māori students are suspended and expelled (also general at-risk issues);
- teacher attitudes; research in the UK has shown that teachers treat ethnic minorities in different ways (racism, language difficulties, differences in disciplinary tactics with different groups etc.);
- communication/consultation between schools and the community/whanau (ties into point above);
- benefits of second-chance training; the short- and long-term benefits/disadvantages of any employment *versus* training/education in specific fields (e.g., TOP as an alternative to crappy job);
- method of education delivery and alternative teaching methods (cases of TOP providers teaching the school curriculum—can you generalise about Māori preferences in learning styles?;
- assessment methods for Māori;
- every education policy should be evaluated for its effectiveness;
- whether the Treaty of Waitangi is used in a meaningful way in schools (could lead to development of guidelines for use of the Treaty in school charters);

- (l) adequacy of training for Māori board of trustees (look at co-option of Māori on to boards);
- (m) hard data on the effectiveness of Māori-medium education to use in direct comparison with mainstream outcomes (longitudinal study which includes differentiation between high and low socioeconomic students);
- (n) the place of iwi and hapu in the research arena—who should pay? Why?
- (o) the role of wananga in the future of research;
- (p) the development of alternative infrastructures able to cater for Māori needs in research;
- (q) the development of Māori-specific research centres;
- (r) the tension between traditional knowledge and other knowledge—what is Māori and what isn't (best seen in the science debate and the health curriculum);
- (s) creating mainstream norms of research behaviour—the "ethics of ethnic concerns";
- (t) consultation, delineation, deliberation, and sharing;
- (u) curriculum documents—ownership issues; development issues—Māori medium *versus* mainstream Māori use;
- (v) contemporary policy issues and research possibilities:
 - TER;
 - NQF;
 - Teacher Education Review;
 - ESM;
 - ERO Review;
 - linkages with other policy developments such as RoBM, Strengthening Families, Youth Suicide, Mental Health;
- (w) monitoring developments (framework stuff?);
- (x) the Health Research Council model and tendering process;
- (y) funding Māori educational resources—exciting new products in large large large numbers;
- (z) te reo Māori issues—quality, development, language frameworks, competency levels; the role of Te Taura Whiri; policy developments; broadcasting research issues, etc.

Note that all these are issues which need to be sorted out and discussed as part of the development of an agreed research education framework. I hope that this conference will give people an opportunity to debate and clarify the key issues.

OPEN FORUM

Issues Raised in Discussion After Panel Presentations on Policy Makers' Expectations Regarding Priorities for Educational Research

- ☐ Judith Aitken was asked what use ERO made of research; and she replied with ERO's focus on high-quality research, and a description of ERO's development of its own library, journal circulation, and annotation as part of ERO's staff performance agreements, particularly material related to evaluation.
- ☐ Several speakers from the floor expressed concern about the lack of time and access school staff had to keep up with research, with emphasis on the value of verbal presentations, digests which summarised pertinent research findings, and the need to address school workloads in policy development.
- ☐ Speakers identified the need for teachers to take more account of research. A related theme was the importance of the current emphasis in teacher initial training on research, and the use of research. The next generation of teachers needed to see research as part of their profession and their ongoing professional development. The concern was expressed that the new competitive environment and shorter course lengths of recent policy and signalled in the green papers on tertiary education and teacher education would undermine this emphasis.

CLOSING STATEMENT

Anne Meade

New Zealand Council for Educational Research

One of the exciting aspects of the conference has been the diversity of the educational researchers and organisations present. I think the participation by educational researchers from polytechnics, colleges of education, private training establishments, and other places, as well as participants from institutions which have traditionally been involved in educational research is a challenge to our thinking. The community has grown and become more diverse, which is helpful for the eclecticism which Barry McGaw indicated as important for strengthening of educational research.

We started the day with questions and definitions about "What is education?" and "What is educational research?" They are still open questions after our discussions, but at least we began by thinking about definitions—a useful starting point.

Much of the discussion during the day has been about contexts and arrangements:

- pre-conditions,
- structures,
- funding,
- linkages,
- relationships,
- modes/paradigms and cultural epistemologies.

The relationships most often referred to, with suggestions for improvements, were between researchers and practitioners, and researchers and policy makers. As well, relationships between those of us in the educational research community were also analysed and comment was made on Māori to Māori relationships.

Given the above, it is not surprising that communication was a major theme for the day. Body language indicated a great deal of support for Professor Nuthall's statement that we cannot go past face-to-face talk for improving communication, and disseminating our research findings.

Another theme through the day was the need to improve the contexts and practice regarding professional development and training of neophyte educational researchers.

The proposals for research areas and topics were many and varied. We would have a full A to Z of ideas, and probably a further list of AA to ZZ. However, one common theme was that we need more research on what enhances the quality of education for our students, whether they be in early childhood education, schools, tertiary institutions right through to postgraduate students. A type of research which was often cited is longitudinal studies.

Teachers becoming more research oriented and reflective was another theme of the day.

What did not emerge as a theme is the notion that we do some "landscape designing" and set a specific agenda. It does not appear to be a priority.

I would like to close the day by saying thank you to the participants for coming and making it a lively day, thank you to the speakers and chairpersons, and note-takers who have been less visible. Also, to the back-of-house team.

Stuart McNaughton and I have talked during the day about the possibility of a follow-up discussion at the annual conference of the New Zealand Association for Research in Education in December. We look forward to continuing this dialogue if the organisers can include a session on "Priorities for Educational Research" at Auckland in December.

**PRIORITIES FOR EDUCATIONAL RESEARCH
IN NEW ZEALAND**

Notes from Follow-up Workshop, 17 October 1997

A workshop was held to distil the key messages from the NZCER conference on 16 October 1997, for Government, NZARE, and for NZCER. The workshop had a small membership, with NZCER (Anne Meade, Cedric Croft, Wharehuia Hemara, Val Podmore, Cathy Wylie); NZARE Council (Ruth Mansell); the Ministry of Education (Rob McIntosh, Barbara Annesley, Lynne Whitney, David Woods); Education Review Office (Sharon Ellis); and Te Puni Kōkiri (Paora Howe, Kath Boswell) present. Professor Barry McGaw, ACER, was also a contributor. The meeting was chaired by Rae Julian.

Discussions at the workshop were wide ranging, but encompassed the following key areas:

- issues in the dissemination and communication between educational researchers, policy makers, and how these might be addressed;
- the usefulness of educational research for policy purposes and frameworks for improving this;
- setting priorities for educational research;
- the use of research by teachers and others with an interest in education;
- fostering research expertise, and international collaboration;
- action steps to address the issues identified.

Communication

It was noted that there was evidence at the conference of a sense of frustration that some researchers felt with respect to communications with policy makers. It was agreed that there needed to be multiple channels and methods for greater contact between policy agencies and educational researchers. Researchers, the Ministry of Education, and other Government agencies need to work together to create a culture in which the needs, contexts, and methods of each are understood and the contribution of the other is heard. It was agreed that informal communication networks are often the most valuable in terms of achieving this aim.

Other suggestions for improved communication included government departments putting up their work-in-progress areas on their Web pages and inviting e-mail comment and/or pertinent research findings to be sent in; and NZCER and other researchers making their findings available in a wider range of formats (Web, cassettes, research briefs, and so on).

Frameworks for Effective Educational Research

There was a feeling that we need to work within current and emerging frameworks, but focus more on how educational researchers can inform the wider community, as well as policy people.

Ministry of Education officials noted that the frameworks within which policy makers work are set politically. Researchers need to consider how their findings might be effectively applied within these existing frameworks.

Priorities for Research Topics Which Emerged from the Conference

Although the suggestions had mostly been wide ranging, some topics came through several times and in different ways:

- monitoring/evaluating the effects of education policies at all levels of the system, but particularly in the school system,
- the need for educational indicators,
- more Māori education research, addressing disparities,
- longitudinal studies.

There was some discussion as to whether national priorities for educational research should be established. Participants noted the difficulties of gaining a consensus, and agreed that relevant organisations (NZCER, universities, polytechnics, etc.) should be free to establish their own priorities.

It was felt that priorities for educational research should be broadly defined, but not so much so that they exclude none. Any research priorities that were identified should be ones which endure over a period of time. Officials would welcome priorities which inform a range of policy developments.

Criteria for Establishing Priorities for Educational Research

The priority-setting criteria developed by the panel commissioned by the Australian Research Council were discussed. They were:

Criteria deriving from application, use and benefits of research:

- social and economic needs,
- equity and social justice,
- the needs of professional practice;

AND

criteria deriving from the needs of educational research:

- the need to preserve and capitalise on existing research strengths,
- the need to contribute to and capitalise on advances in research,
- the need to remedy important gaps and weaknesses in research.

(McGaw, et al., 1992)

The workshop participants agreed that these could be useful in informing the development of priorities by New Zealand education policy and research organisations.

Teachers Becoming More Research Oriented and Research Apprentices

The workshop participants discussed ways in which educational professionals (especially teachers and principals) can be encouraged to engage in, and with, research and to be "reflective practitioners". It was noted that the best way to achieve this is to link research and practice, and make it more relevant to those who can apply the findings. It was also noted that teacher education needed to promote a research culture amongst teachers. It was acknowledged that teachers trained in the 1990s were more research literate, and some continued their studies and became teacher-researchers or researchers. There is considerable emphasis on reflective practice in some professional development, although the extent of research usage is not known. Career opportunities

for, and professional development of, research "apprentices" contribute to developing a research culture in the education world.

The modes of information most accessible to teachers, and the role of professional organisations and researchers in disseminating research findings, were also discussed.

International Collaboration

Information was exchanged about the types of international collaborations which currently occur. There are big cross-country studies, such as IEA studies (e.g., TIMSS) and OECD, as well as smaller studies such as NZCER's Korean study which was done with assistance from the Korean Education and Development Institute, Seoul. Individual researchers and academics usually build international networks around their special fields of study.

Information sharing between indigenous educationists and researchers was also outlined.

It was felt that there were some limitations on the value of projects involving countries which are markedly different, culturally and organisationally. Care is necessary in interpreting results. However, the participants felt that Australia and New Zealand were sufficiently similar for benefits to be gained from greater information sharing and collaboration.

Action Steps

It was felt that the discussions which had occurred in the last two days were important and needed to be continued at the NZARE conference, and with further meetings where researchers and officials had open exchanges of views.

References

- McGaw, B., Boud, D., Poole, M., Warry, R., & McKenzie, P. (1992). *Educational research in Australia*. Canberra: National Board of Employment, Education and Training.